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ART IN INDUSTRY

By CHARLES R. RICHARDS

BEING THE REPORT OF
AN INDUSTRIAL ART SURVEY
CONDUCTED UNDER THE AUSPICES OF
THE NATIONAL SOCIETY
FOR VOCATIONAL EDUCATION
AND THE
DEPARTMENT OF EDUCATION
OF THE STATE OF NEW YORK

New York
THE MACMILLAN COMPANY





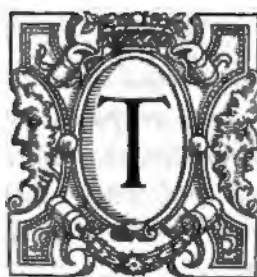
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BY CHARLES R. RICHARDS

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PREFACE



THE object of the survey embodied in the following report is to ascertain as accurately as possible the situation existing in American art industries as to standards of design and the conditions that at present operate to limit these standards. The report is based on no theory or traditional point of view, but has sought to be thoroughly objective in its attitude and methods.

The survey has been an essentially coöperative enterprise, involving the assistance of eighty-eight individuals who served on trade and school committees, as well as many others prominent in the art industries. It represents a study of five hundred and ten producing establishments located in fifty-five different cities, as well as of fifty-five schools giving instruction in industrial art.

The aim is to present a picture of actual conditions relating to the practice of applied design in the United States, to the end that clearer thought may be brought to bear upon the situation and that intelligent measures for its improvement may be developed.

In the make-up of the report the more definite and concrete recommendations will be found in the summaries at the end of each of the trade surveys and in the school study. The final conclusions deal with the larger elements of the problem.

It may be felt that in recommendations and in descriptive matter, undue consideration has been given to New York City. The attention given to this city is partly due to the

fact that New York represents the great center of industrial design in the United States, and partly because of the necessity, when presenting specific recommendations, of basing these on local conditions. It is not the intention to suggest that these recommendations are limited to New York City, but rather to put forth typical propositions that might be developed in modified form for other localities. In describing agencies outside of schools and commercial practice that are operating to advance the situation, particular reference has also been made to New York City, although it is probable that somewhat similar organizations and activities are to be found in other cities.

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FOREWORD

Art is a plant of slow growth. All great periods of artistic achievement have been the culmination of extended periods of cultural growth in which the racial genius, experimenting and advancing over long periods of years, has finally issued in manifestations peculiarly expressive of the national life and qualities. In the great developments of the past, such as Greek and Gothic building, Chinese porcelains, French furniture and Italian textiles, designers and craftsmen in each distinctive period have followed a single master motive or style to which each individual has but added his own personal contribution towards a gradual perfection of the art. Furthermore, throughout these great periods the craftsman and designer were for the most part one and the same person. Even when this was not the case the designer stood in intimate relations to the craft and his attempts at artistic expression were based on a thorough understanding of materials and processes.

This era of craft work flowering in national styles came to an end in the early nineteenth century. Since then the industrial and, indeed, the artistic character of the world has changed. The age of machinery arrived. Production in relatively vast quantities became the rule, and aesthetically, ever since, we have been to a large extent mastered by the machine. Productively the machine has been our slave and turned out increasing quantities of goods more and more perfect on the material side. But artistically we are still engaged in a struggle for mastery.

During this later period, the older, gradual method of working out a national style disappeared. Creative power, to keep pace with the new agencies of manufacture and give appropriate art expression to the products of the new order was lacking and mankind turned back for resource upon the artistic achievements of the past, choosing here and there a motive, copying, modifying and adapting, according to the momentary whim. At times waves of reproductive fashions and styles caused by some occurrence or anniversary have taken posses-

sion of the popular fancy, and occasionally efforts have developed to break away from the past and create a new style, based upon new ideas. Outside of the field of women's dress and its contributing textiles, however, a review of the arts for the past century shows little but a varied kaleidoscope of the older motives, barren for the most part of new ideas and lacking wholly in coordination of effort toward distinct modern styles.

In America we assumed our place as a nation practically at the time of the industrial revolution. We had no artistic traditions except those of the mother countries where the old order was shortly to change into the new. Furthermore, the material needs of life absorbed all the energies of our people. As we expanded and became prosperous the genius of leadership was absorbed in the development of our natural resources, the expansion of our railroads, the opening up of our mines, the felling of our forests, the building of factories and the organization of our industries. Naturally, under such conditions, we looked to the old world for our artistic leadership. Our architecture is the most outstanding illustration, but the same fact runs through all of our arts. Like all Europe we have gone back to the past and we have gone back largely through the eyes of Europe.

For the most of our inspiration in later years we have turned to France. Paris has been notably the center of styles relating to women's wear as well as many other things that concern the elegancies of life. To England we have gone in many matters concerning the decoration and furnishings of our homes.

The World War strikingly brought out our dependence upon European taste. Importations of artistic goods ceased to a large extent and it was no longer possible to purchase designs or copy patterns originated abroad. In the last year of the war, and in the period following, with the relative abundance of money in this country, this situation was brought out in marked relief. The need for designers was severely felt and the fact that the schools were not functioning with entire success to produce such designers became apparent. During

this period much was accomplished in certain industries to develop our own resources in the field of design and to render us comparatively independent of Europe. With the resumption of artistic production in Europe, it remains to be seen whether we will allow ourselves to fall back upon dependence on foreign leadership or whether America will take advantage of the ground already gained and make resolute efforts to move forward substantially in its artistic development.

The present survey represents an attempt, first of all, to ascertain the situation existing in the art industries of our country as to standards of design and our present degree of dependence on Europe. Effort has also been made to ascertain the artistic and practical requirements involved in the designer's work, the professional history of designers now engaged in American industry, the cause of the lack of success of our art schools to function effectively, and the opinions of individuals prominent in the art industries upon a number of questions as to the training of and requirements for designers and as to methods of merchandising.

While by no means the only element considered, it will be apparent that a large amount of attention has been devoted to the conditions under which designs are developed and those requisite for their improvement. This has been done with full realization that the quality of designs obtainable is not the only factor affecting the standards of applied art. Back of quality of design is the all-prevailing influence of popular taste—a taste represented to a large extent by relatively crude standards and susceptible only of gradual improvement.

On the other hand, it is evident that fine quality of design, while not the only factor in raising standards of taste, is a powerful influence in advancing the whole situation, and in certain lines of industry perhaps all sufficient. In the fluid movement and contacts of American life, with the ever-present spectacle of the street, the theatres, and other forms of crowd intercourse, with the rich displays of the department stores, with the eye-catching advertisements in the magazines, the public press and other commercial literature, the fine thing becomes quickly

recognized and under certain conditions becomes a powerful incentive to new and higher standards.

The field of study adopted by the survey is that of the manufacturing industries in which design exercises a relatively important influence. It was thought best to confine the scope of the survey to these industries for several reasons. In the first place, they represent in extent by far the largest problem in the field of applied art. Certain other trades or vocations, to be sure, represent important elements from the artistic standpoint, such as those which center round the building industry, including architectural iron work, terra cotta, stone carving, wood carving and interior decoration; but these are within the purview of the architect or the architectural designer and from all practical points of view are adequately taken care of.

The industries that were selected for study are as follows: Textiles, costumes, jewelry, silverware, furniture, lighting fixtures and art metal work, ceramics, wall paper, and printing.

The organization of the survey was developed as follows:

In April, 1919, a letter was presented to the General Education Board by the executive committee of the National Society for Vocational Education urging the importance of an industrial art survey of national scope. In November of the same year, the Board made an appropriation of \$60,000 for the purpose of such a survey and requested the National Society for Vocational Education to conduct the same. The executive committee of the National Society accepted the appropriation and agreed to conduct the survey. A committee of three consisting of Frederic B. Pratt, David Snedden and Lewis A. Wilson was appointed to take charge of the undertaking. This committee appointed Professor Charles R. Richards as Director of the survey.

The first step in the internal organization of the survey was the appointment of a general advisory committee composed of individuals prominent in the trades to be studied and noted for intelligent and sympathetic interest in raising the artistic standards of these trades. To these were added several indi-

viduals identified for their interest in the problem of applied art and representative of institutions prominent in this field.

The constitution of the committee was as follows: John P. Adams, Albert Blum, Charles Cheney, William Sloane Coffin, De Witt A. Davidson, Robert W. De Forest, E. W. Fairchild, Julius Forstmann, C. C. Lane, V. F. von Lossberg, Albert E. Lyons, Lachlan McLachlan, Max Meyer, John C. Oswald, Frederic B. Pratt, W. Frank Purdy, M. D. Rothschild, W. G. Snow, E. L. Torbert, and Henry R. Towne.

The functions of this committee were to consider and advise as to the scope and methods of the survey, and to aid in the development of its report. The first meeting of this committee was held on January 2nd, 1920, at which time a general plan for the survey was submitted by the director and discussed by the committee. A number of suggestions were offered and hearty cooperation in the undertaking assured by all members. Immediately after this meeting the organization of committees in the several trades was begun. These committees were composed of individuals in close contact with design work in important establishments. The number on these committees varied according to the character of the industry. In the textile industry, with its many subdivisions, the committee numbered seventeen. In industries like ceramics, and wall paper, the number was three or four. The function of these committees was to consider in detail methods of procedure and to indicate to the director the establishments and individuals most worth while to approach for the purpose of study. Individuals on these committees signed letters of introduction which were carried by members of the field staff in seeking interviews.

The membership of these committees is given below.

Costume Trades—Max Meyer, E. W. Fairchild, Milton Wolf, Edward L. Mayer, A. E. Harrison, Edwin Goodman, Harry Collins, Mrs. A. H. Flanders, Jacob Rapoport, Alfred G. Son, Frederick Bode.

Textile Trades—Charles Cheney, Albert Blum, E. Irving Hanson, Julius Forstmann, A. L. Gifford, David Aaron,

Felix Meyer, W. G. Burt, M. D. C. Crawford, Arthur Selig, Albert E. Bonotaux, Matthew W. Ryan, J. Walter MacLaren, Thomas F. Gurry, W. G. McCullough, Sidney Blumenthal, T. P. Costello, William Sloane Coffin, A. J. Graffin, John Snowden, H. T. Wight, Robert Schey.

Jewelry—Meyer D. Rothschild, De Witt A. Davidson, Herbert L. Farrow, Jacob Mehrlust, August Goldsmith, Frank Milhening, Harald Ostby, Orrin Clifford.

Silverware—W. Frank Purdy, W. G. Snow, Gilbert Crowell, G. A. Henckel, Albert Southwick.

Furniture—John P. Adams, Lachlan McLachlan, James Criswell, Edward Nahon, Embury Palmer.

Lighting Fixtures—V. F. von Lossberg, Walter Kantack, Stephen de Kosenko.

Wall Paper—Albert E. Lyons, Henry Burn, Howard M. Heston, T. S. Marshall.

Ceramics—E. L. Torbert, Frank G. Holmes, L. S. Hinman, Edwin M. Knowles.

Printing Trades—John C. Oswald, C. C. Lane, G. F. Kalkhoff, E. F. Eilert, William E. Rudge, E. E. Bartlett, Edward Epstein, Robert R. Heywood, Le Roy Latham, Douglas C. McMurtrie, Stanford Briggs, Heyworth Campbell, Egbert G. Jacobson, Ray Greenleaf.

All data collected in the survey studies were obtained by personal interview between members of the staff and indicated representatives of commercial establishments. The main bulk of data was obtained through the establishment representative, often a member of the firm, the manager or the styler. In addition certain data were gathered as to the professional histories of the designers employed in the establishment designing rooms, together with opinions as to training for such work. Wherever possible, information concerning the designers was obtained by personal interviews. In many cases, however, the persons responsible for the design work of the establishment were found to be sensitive in regard to the approach of the survey representative to the designers and in

such cases it was found necessary to obtain data in this direction from questionnaires left in the establishments.

Besides the study of the manufacturing establishments, studies have also been made of the commercial studios supplying designs to the trade. A considerable number of interviews have also been had with free-lance designers in each trade where such designers form an important element. In the printing trade a special effort was made to obtain opinions upon certain matters from a large number of art directors of advertising agencies, as well as from prominent commercial illustrators and artists working as individuals.

Fourteen persons were employed to make the field studies. In almost every case it was found possible to secure workers who had had both practical contact with the trade to be studied and some teaching experience in an art school. The survey was especially fortunate in the quality of personnel that it was able to secure for this work. The personal qualities of its representatives together with their practical knowledge of design conditions in the various trades made possible an accurate and comprehensive collection of the desired data.

The central field of investigation was naturally New York City. Not only does New York set the fashions for the country in women's wear, but to an astonishing degree it has become the center of designing for most of the important industries of the country. Where in former years the designers were located at the mill or factory, as in the case of the textile trade, they are now, at least for creative designing, attached to the offices in New York. This change, of course, comes from the fact that this city has become the commercial center of the country. Designing is most naturally accomplished where the fashions and styles originate and where the buyers congregate.

The purpose of the survey, however, has been to make a national study, and the investigations of the field representatives have been extended to some fifty-five cities extending as far west as Minneapolis and St. Louis and with special reference to places where important developments of the art industries are found.

In addition to the trade survey, a study of the work in applied design represented by the art schools of the country was made. A conference of representatives of fifteen of the more important schools of the country was had in New York City on March 31st, 1921. The plan and scope of the survey was laid before the conference and it was agreed that a school study was a logical and necessary element in the survey. Upon motion, a committee of five was appointed by the director to cooperate in the prosecution of this school study. The committee as appointed consisted of Walter S. Perry, L. Earle Rowe, Frank Alvah Parsons, Huger Elliott, George K. Gombarts. A data sheet for the school study was drawn up in cooperation with the committee and two persons were employed to make the studies. The study of the schools in New York State was made by the New York State Department of Education.

In developing a report aiming to improve American methods of training designers, it was deemed necessary to include a study of the schools of applied design and industrial art in certain countries of Europe. For this purpose a representative was sent to Europe in the spring of 1920, who inspected and studied schools of applied art in France, Switzerland, and England. The time devoted to this study, namely three months, while not sufficient for a comprehensive survey of the entire art-school situation, developed, it is believed, the salient facts of most significance to our American problem. In the final development of the reports of the schools in England and France, the survey has had the valued assistance of eminent educational authorities in these countries. In regard to industrial art education in Germany the survey has been able to make use of a modification of the report prepared in 1912 by Dr. James P. Haney for submission to the Board of Education of New York City. The pre-war situation in regard to applied-art instruction in Austria-Hungary has been described by Professor Gyula Mihalik, until 1922 director of the Royal Hungarian School of Industrial Art at Budapest.

TRADE STUDIES

It should be stated at the outset that the period, January to September, 1920, during which the field studies of survey were conducted, was, in many ways, an abnormal period. The large increase of money in circulation in the United States, particularly among laboring people and those of ordinarily moderate income, brought about an amount of luxury buying that the country has never before witnessed. As a consequence, and with the added fact that in certain industries importations from abroad had practically ceased, the demand upon production sources was one for quantity rather than quality, or at least novelty of design. During such a period buyers were largely content with standard products and did not insist upon freshness and beauty of design to the extent that obtains in normal times. As a result designing staffs in certain industries in spite of very large demand for production were actually decreased and in some staple branches of the textile trades it was found that looms were carrying the same patterns that they carried a year previous. This situation has been somewhat unfortunate as it has necessarily to some extent colored opinions and influenced data. Effort has been made, however, to translate the data obtained into terms of normal supply and demand.

Study of the actual conditions under which designs are produced for the art industries brings out, first of all, the varied nature of the situation. Not only are the conditions in great contrast, as between different industries, but they vary to a remarkable degree between branches of the same industry. For example, the conditions surrounding the production of designs for printed silks bears little or no relation to those concerned with designs for woollens.

Furthermore, it is evident that in certain industries, chiefly those concerned with women's wear and contributory textiles or in graphic advertising, where the requirements of the case demand constant variety and novelty and where the products are submitted to critical and discriminating appraisal, the

production of designs has reached a high degree of creative activity and also of artistic results. On the other hand, in other industries—mainly the household arts group, where the demand for variety and novelty is less and competition weaker on the part of the consumer—not only is the demand for new designs less marked but the extent of creative work is much smaller.

COSTUMES

The clothing industry in the United States ranks second in the manufacturing industries of the country in regard to value of product. In this great development the manufacture of ready-made clothing has reached very large proportions and represents a situation peculiar to this country. The United States Census of Manufactures, 1914, states: "Prior to 1880 the manufacture of women's ready-made clothing was confined almost entirely to cloaks. In the early eighties ladies' ready-made suits were introduced, and later shirt waists, and by 1900 all articles making up women's wearing apparel were on the market ready-made."

This manufacture of ready-made clothing, particularly in the matter of women's apparel has centered very largely in the city of New York, where the clothing trades hold first rank, in point of value of product and number of persons engaged, among the industries of the city. This development has been made possible largely by the great immigration of Jewish people from eastern Europe. Through the peculiar genius of these people for merchandising, their highly developed individualism, their artistic perception and their thorough training in the craft of tailoring the costume industry of New York City has been largely built up. In the manufacture of women's clothing the Census of 1914 shows 3,723 establishments in New York City producing a product of the value of \$339,843,000 as compared to 5,564 establishments in the entire United States with a product of \$473,888,354.

CUSTOM DRESSMAKING—MODEL MAKING

NATURE OF DESIGN
USED IN
THE INDUSTRY

In the matter of fine costumes for women the word Paris has for half a century spelled everything of prestige and elegance to the American woman. Against a cult so firmly established and so universally widespread, progress is extremely slow and difficult. New York City has indeed become the American Paris in fine costume making, but it is a Paris that is obliged to struggle in competition with the older city, not merely on the basis of achievement, but against a heavy weight of tradition. A number of the leading costume makers in New York City have for years been engaged in a resolute effort to develop American designs and to create styles for women's dresses. They have persisted in this effort at times in the face of pecuniary loss.

The world war afforded an opportunity for these establishments to gain an appreciation of their products never before possible. Today a number of the foremost dressmakers depend largely, if not wholly, upon their own creations and receive their patronage on this basis. In some cases they pursue a compromise policy, French models being imported and exhibited side by side with the American creations.

Among these leading houses a very high order of artistic talent is to be found together with high ideals and ambitions as to American possibilities in this field. In these establishments the designs are in every sense original, suggestions coming from every direction—from Europe, from the museums, from the theatres and elsewhere; but the resultant gowns are distinctly new creations.

As the grade of the establishment lowers, less and less original work is found, and more and more dependence is placed upon Parisian models. With this dependence it was found there was liable to go an increasing attitude of scorn and skepticism for American designs. Even in these establishments,

however, it was found that the models obtained from Paris have to be modified in order to conform to American taste.

WHERE DESIGNS
ARE
OBTAINED

In high-grade establishments the designers are employed within the house; few designs are purchased from freelance artists. Such a policy is essential, as these houses aim to produce a style typical of the establishment, and it is impossible for the outside designer to sense the qualities of the situation.

One of the establishments studied is a French importation house where no original designing is done. They buy and copy French models entirely. Six of the other establishments purchase some designs in Europe. Only one representative states that he considers European designs superior to the best produced in America. In this case it was stated that it is impossible to produce costumes in this country equal to those of Paris because we lack the atmosphere to inspire original creations. Representatives of the other establishments state that while they do not consider European designs superior, they find it necessary to import them because of the demand of their customers. One element in the situation that makes it difficult to market American creations is the prestige and superior prices commanded by costumes made in Paris. Retail establishments throughout the country often request that the French label be placed upon costumes made in New York.

One establishment purchases some designs from a freelance artist, the general characteristics and color scheme of the design being defined by the styler. In the lower-grade houses many outside designs are purchased and are worked over by a sketcher employed in the establishment. Most houses maintain one or more sketchers who copy the designs for purposes of record.

HOW NEW DESIGNS
ARE DEFINED

In all establishments there is a styler who either defines the design or passes upon the designs produced by the designers. In several establishments the styler, who is often the proprietor or a member of the firm,

is also a designer. In one of these firms no other designer is employed. This head designer and styler had an extensive art-school training. With this exception the stylers were developed through practical experience in the trade.

WORK OF DESIGNERS

There are two methods of designing practiced in the trade, preference being shown to one or the other according to the taste or the ability of the designer. In most cases the design is developed by draping and pinning material on a manikin or a dress form. This is sometimes first done in crinoline, followed by the finished material. After this comes the cutting of patterns, fitting, and finally the making of a sketch. The other method is to design the costume first on paper with pencil and color wash. This is followed by a study of the effect produced in the actual material, draping on a model and by criticism and alterations. Cases were found where the head designer used one method and the assistant designers the other.

TRAINING OF DESIGNERS

The number of designers employed in the establishments studied varies with the season, a few of the firms employing additional designers in the spring and in the fall of the year.

Information concerning twelve designers was obtained. All were trained in the United States. Three had art-school training and nine were trained through practical work in the establishments, one of these having had some training in an evening school. One other firm employs from four to twelve designers, depending upon the season, some of whom were trained in art schools and others in the trade.

The persons employed to make sketches for purposes of record were found almost uniformly to have had art-school training.

REMUNERATION OF DESIGNERS

Salaries range from \$35 per week for beginners to \$10,000 and even \$20,000 per year for experienced designers. In none of the establish-

ments is there a fixed scheme of salary progression, but the salary is increased as the designer shows proficiency in his work.

DEMAND FOR
DESIGNERS

The opinion was uniformly expressed that not more designers are needed for the creation of fine costumes in America, but more gifted and more broadly cultivated designers capable of developing even finer products which will bear critical comparison with the designs of Paris shops.

One leading costumer expressed the opinion that this country is not so much in need of designers as in need of education of the American woman to the point where she will possess both the taste and the courage to express her own individuality in dress rather than to follow blindly the lead of fashion.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

All of the establishment representatives expressed the opinion that no courses in the present art schools furnished an adequate training for designers of costumes, but that a helpful training might be developed in such schools if courses specially adapted for the industry were developed. All feel that essential elements in such courses are sewing, draping, cutting, fitting, study of fabrics, and drawing both from the nude and the draped figure. Five feel that students should do marketable work while in school. One representative feels very strongly that it would not be practicable for students to put in part time in commercial establishments as part of their training, while four believe that this would be a good plan if it could be arranged. One recommends that students apprentice themselves during the summer in costume establishments.

Six believe that evening schools are of value in the training of designers, while two do not. The majority feel that the employers should assume a large responsibility for the training of their employees in the design room.

TRAINING
RECOMMENDED
BY DESIGNERS

Records were obtained from six designers employed in establishments studied. Four of these feel that the best foundation for their work is a school training which should be largely of a practical nature, including sewing, cutting, fitting and draping, as well as drawing from the figure, color, and study of historic motives. Two believe that the best training can be obtained in practical work supplemented by outside school training.

One designer, who is a graduate of an art school of good standing, believes that designers should have a four-year training in art, which should include a great deal of drawing from the figure and cast, study of anatomy, and of design and ornament, as well as practical training in cutting, fitting and making, and study of materials.

MUSEUM
COLLECTIONS

One representative feels that museum collections of dresses are of value to designers of fancy or theatrical costumes but that they are of little importance to designers in high-grade dressmaking establishments. One other states that museums are of little value for the costume trade. With these exceptions the representatives feel that museum collections are an important source of inspiration. Two representatives state that if a loaning system could be established by museums it would add greatly to their value.

It is felt that reproductions and photographs as well as original specimens should be included. Four feel that present-day products of costumes and textiles should be given a place. The Metropolitan Museum of Art and the Museum of the Brooklyn Institute of Arts and Sciences are mentioned as being of great help to designers in Greater New York. It is generally felt that the museum should be open in the evening.

SUMMARY

Of late years there has been much attention paid in art schools to the training of young persons for costume drawing, but very little has been accomplished in the way of

developing costume designers. The work in costume illustration is of great importance as a factor in educating public taste, but it does not directly produce costume designers.

The majority of high-grade designers in American costume houses have been developed through practical experience in producing establishments. In a few notable cases, however, they have received training in art schools. When the present achievements in American costume design are taken into account and the conditions requisite for future expansion considered, it would seem fair to conclude that training opportunities involving a more liberal amount of art culture than can be readily obtained in the design room are liable to be of much value. Although it is true that not many high-grade designers are needed, it is also true that the quality of creative work that is in demand and the liberal compensation that is available for real talent are such as to justify an extended period of school training.

Such a school training is evidently not to be found along the lines of present art-school courses. Neither is it to be found wholly in dressmaking courses. What is needed is to some extent a combination of the two. A thorough training on the practical side, which develops a mastery of making processes, a knowledge of materials and a habit of sound craftsmanship should be made the foundation. The handling of fabrics, and the actual making of dresses should provide the main opportunity for cultivation of the artistic point of view. Effort should be made to awaken the critical faculty in the students from the start. Such a course should confine its instruction to young persons who show a serious desire to learn thoroughly the dressmaking trade and at the same time give some evidence of artistic ability.

According to the styler's and designers' judgment, the course of instruction should include, on the practical side, thorough courses in sewing, cutting, fitting and making of dresses and should give considerable study to the various dress materials and their appropriate use. On the other side, instruction in drawing should be had culminating in work

from the draped and nude figure. This should be accompanied by the study of anatomy. Work in color should be a prominent element and attention should be paid to the study of historic costume styles. It seems very desirable that work in such a school should center in the actual making of dresses for use and for sale and that students should be paid a proper share of the profits obtained.

In order to insure the practical quality of the instruction in such a course, an advisory committee of experts from the costume trades should be developed and brought into intimate cooperative relations. A valuable service could be contributed by members of such a committee in practical demonstration as to methods of costume draping before the class.

Such a course would obviously be an experiment and it could hope to gain recognition only slowly through results. If American art schools, however, can develop such courses they will be in a position to render a large service to the fine-costume trade in this country.

Evening classes present an important channel for the development of costume designers. At present most of the instruction in evening classes given under the heading of "costume design" is calculated to train for costume drawing rather than for design. If such classes are to function in the development of future designers it will apparently be only through reaching young people already experienced in dress-making processes and giving them instruction in drawing and composition accompanied by practice in draping and arranging dress materials in garment form.

Note: A course now being developed at Pratt Institute will follow substantially the lines indicated above.

In the Massachusetts Normal Art School effort is made to acquaint the students with practical trade conditions by requiring members of the fourth-year class in costume design to spend eight weeks in a dressmaking establishment. During this period the students are paid regular wages and enter the shop on the same footing as other workers. They obtain practice in various kinds of sewing, cutting, draping, and fitting.

WHOLESALE DRESSMAKING

NATURE OF DESIGNS
USED IN
THE INDUSTRY

In the wholesale dressmaking establishments, as in the case of the custom houses, there is a constant demand for new designs. This demand is met partly by copying or modifying the successful products of the retail houses both here and abroad and partly by the creation of new designs in the establishments. Inspiration for these new designs comes largely from Paris but of late there has been a marked tendency in certain high-grade houses to develop designs evolved from American rather than from European suggestions.

WHERE DESIGNS
ARE OBTAINED

Interviews were obtained from seven establishments. In one of these the owner designs all of the costumes produced. All of the other establishments employ designers. In one case no models or sketches are purchased outside, and the four designers employed are relied upon to develop new styles. Sketches which may have helpful ideas for the designers to work from are purchased by four establishments. Four establishments report that they import models from Europe, and that these invariably have to be modified to meet the demands of the American market. Only two representatives state that European designs are superior to those obtainable in the United States.

HOW DESIGNS ARE
DEFINED

In four cases the stylers, who are the proprietors, determine the character of the style to be followed. These stylers were all developed in the industry. In three of the firms, however, the designers themselves evolve the styles. They are merely told what type of dress they are to design, whether for street, afternoon, or evening wear, and are then given free rein. In one of these establishments the models made up are shown to a committee of the leading customers and this committee decides which models shall constitute the line for the season. In the other

two establishments, where the designers work out their own ideas, the proprietor passes upon the models before they are accepted.

WORK OF DESIGNERS With the exception of tailored dresses, which are first worked up in canvas, the almost uniform practice is to develop new designs directly in the material, which is draped until the desired effect is secured. A sample model is then made which is used for reproduction. In some cases a sketch of the new design is first made and submitted to the styler, but this is not the general practice. After a model has been developed a sketch is usually made of it for record purposes. This is done by an artist and not by the designer, who is rarely able to sketch.

**TRAINING OF
DESIGNERS**

As stated above, the owner of one of the establishments studied employs no other designers. With this exception all of the houses employ designers, the total numbering eighteen or more, according to the demand. One of these received an art-school training in Germany. This was felt to be of little direct value to her in her work as a designer. One received her first training in the principles of design and color in one of the New York City high-schools. Four received their training entirely in the industry, partly in Europe and partly in the United States. The remaining twelve were all trained through practical experience in the United States.

Sending the designers to museums, theatres, exhibitions, hotels and other places which might prove helpful in stimulating their imagination and improving their work are mentioned by establishment representatives as measures employed to inspire designers to greater effort and originality in their work. Several representatives state that their policy is to give their designers as much freedom as possible in their work and to do everything possible making for their comfort and happiness in the establishments. They believe that such conditions substantially assist in the production of superior designs.

REMUNERATION OF
DESIGNERS

Salaries noted range from \$50 per week to the high figure of \$25,000 per year. Sometimes an interest in the business is given, if necessary, to

hold a good designer.

DEMAND FOR
DESIGNERS

Conditions as to the demand for designers in wholesale dressmaking is very similar to that in custom dressmaking. It is not a demand for num-

bers, but a demand for quality.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

The conviction is uniformly held that art schools as at present organized do not train designers for work in this field. The opinion is also very generally expressed that a school training might be developed that would be of

much practical value to the trade. One representative feels that in such a case an advisory committee of manufacturers should be affiliated with the school. The opinion is uniformly held that craft work should be the basis of any school work aiming to produce designers.

The opinion was expressed in a number of cases that designs should be made for the market by students and that these might be of much value to the trade if the school were operated on practical lines with an expert designer at the head.

Although the training in present evening classes is considered to be inadequate, the statement was made by the majority of those interviewed that such classes could be made helpful to designers in the trade through instruction in costume drawing and sketching.

A majority of the representatives state their conviction that in case a practical school training should be developed a large responsibility should be assumed by the manufacturers to further the training of the graduates of such schools in the producing establishments.

TRAINING
RECOMMENDED BY
DESIGNERS

Two of the designers interviewed believe in a school training which shall embrace practical courses in sewing, draping, fitting, and drawing, color and historic costume. Another does not believe in school training but feels that designers are born, not made.

MUSEUM
COLLECTIONS

Museums containing collections of costumes arranged historically are uniformly felt to be of great importance in the development of designers in this country. Originals should be secured wherever possible, but reproductions and photographs are also considered as helpful. It is not the general opinion that such collections should provide for the display of present-day garments. One representative states, however, that costumes made a season or two previously might well be included.

One representative mentions the Metropolitan Museum of Art as fulfilling the needs of costume designers in Greater New York. With this exception it was reported that existing museums do not meet the needs of the trade. All believe that museums should be open in the evening.

SUMMARY

Although the need for creative genius in the designer for wholesale dress-making is not so great as in the case of the exclusive custom product there is a very real demand and large opportunities for high-grade designers for this important branch of the industry. This demand cannot be met by young persons possessing the usual ideals and training of the art-school student. An education functioning solely in composition on paper is in no sense adequate for the situation. For the evolution of the successful dress designer years of painstaking application to the mastery of craft processes are necessary. On this mastery of processes, knowledge of materials, understanding of commercial methods and appreciation of dress effects in color, line and mass, must be built up the capacity to create successful designs.

So far, designers have been almost exclusively developed in the severe discipline of the trade. Out of many aspirants only those possessing a balance of marked practical ability, strong perseverance and artistic talent have reached success. No school provides such a training in any full measure at the present time, and it would require several years to demonstrate whether a school can successfully maintain effective instruction on these lines, adequate to meet the trade needs, and whether students can be attracted to courses of this kind requiring several years of application.

If any training can be developed through the schools that will meet this situation and produce better-equipped designers than the present methods, it must in all probability issue along the lines laid down in the case of custom dressmaking. If a school can be developed to fulfill the one need, it can probably contribute to the other.

BLOUSES

NATURE OF
DESIGNS USED IN
THE INDUSTRY

The competition for successful designs in blouses is very keen, and novelty is constantly demanded. No article of women's wear reflects more sensitively the trend of fashion. Designs are apt to suggest the character of costume in that part of the world where public interest centers for the time being. Parisian styles are followed to a large extent, but the general practice is not to copy European models but to develop designs based upon the motives popular abroad. During the war, styles in this field were relatively independent of Paris, but in the last two years the large source of inspiration has again shifted to that city. In the development of blouse styles particular scrutiny is paid to the trend of the cloak and suit trade.

WHERE DESIGNS
ARE OBTAINED

In all cases designs are developed in the establishments. In six of the firms studied no designers are employed, the styler themselves developing the designs. In one case a large number of French models are imported. The establishment finds it necessary to modify these considerably and many are not used at all. In two other cases a few models are purchased each year from Europe. In other cases, however, it is admitted that many ideas are obtained from foreign styles. Only two representatives report that they consider European styles to be superior to those developed in the United States.

HOW NEW DESIGNS
ARE DEFINED

The owner or head of the firm generally serves as the styler and brings new motives either to the designers or to the drapers. All designers interviewed indicate that considerable responsibility is given to the designer in developing new ideas, although the suggestions are defined more or less specifically by the styler. After a number of new models have been developed the reaction of

the wholesale buyer gives an indication as to which of the designs will be most popular and should be developed.

In all cases the stylers were developed through practical experience in the business.

The designer of blouses generally works directly in the material. A small room is set aside for the designer with a large work-table. The material is draped on a form until the desired effect is obtained, and then it is turned over to a sample hand who cuts the pattern and then makes up a sample blouse. Only one case was found where the designs were first rendered on paper. In this establishment the styler, who is also owner, defines the general character of the design and the assistant designer is expected to go to the library or museum and develop sketches for approval, after which the final designs are drafted.

In establishments which do not employ any designers, the styler himself either drapes the waists or directs the drapers as to the effect desired.

TRAINING OF DESIGNERS

Of the ten establishments studied, four employ designers; the remainder report no designers, but merely drapers. The number of designers employed in the four establishments totals ten or more. All of these were trained in the United States. In the case of the establishment which develops its designs on paper the designer had received instruction in one of our prominent art schools. The remaining seven designers were all trained through practical experience in the industry. As a rule these designers have worked up from sample hands or operators. In the establishment where art-school students are employed such beginners are started in at the bottom to learn the processes of manufacture. The head of this establishment devotes much attention to furthering the practical training of the designers employed and exerts much care to obtain young women of culture with good home surroundings. She states that not many art-school graduates are content to begin at the foot of the

ladder in the workroom and learn the processes of production.

Effort is reported in the majority of cases to stimulate designers by liberal salaries and by giving them a large amount of freedom to visit libraries, museums and stores. In one case the statement was made that a necessary condition for the best creative work is to surround designers by a congenial atmosphere with every possible freedom and absence of disturbing elements.

REMUNERATION OF DESIGNERS

The salaries reported range from \$60 to \$250 a week; \$100 a week is given as the maximum generally paid to drapers. In the case where beginners from art schools are employed they are paid \$20 a week at the start.

DEMAND FOR DESIGNERS

As in the case of the other costume trades the demand is for better designers rather than for any increased numbers. In the words of the head of one establishment, what is wanted is "quality, not quantity; one real designer is all any firm needs."

The fact is noted in several cases that the most able of the drapers tend to frequent change of positions to advance their salaries, or to go into business for themselves.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

All of the establishment representatives interviewed place the emphasis in the training of the designer upon practical experience in draping, cutting and fitting. Feeling for color, sensitiveness to new ideas and fertility of imagination are emphasized as the qualities most needed in the designer. Knowledge of weaves and materials together with understanding of the possibilities of embroidery are emphasized as most important. Knowledge of historic costumes and of pictorial art are mentioned in several cases as of value. In only one case is facility in drawing and rendering considered important.

In no case is the training in the present art schools considered as sufficient to develop a designer. One firm reports

that if such training could be made practical it would be of great value, but that this requires that the school be headed by a practical designer capable of earning a salary of from \$10,000 to \$15,000 a year. In the one case where students have been employed from an art school, emphasis is laid upon the necessity of a subsequent long training in the practical conditions of the industry.

If an attempt is to be made to train designers in schools, nine representatives agree that craft work, especially draping and sewing, would be essential. Two report that students should perform commercial work in the schools. The others believe that commercial experience can best be gained in the establishments. All think that commercial experience should be provided after the school training in which the establishments assume a large measure of responsibility.

Nine feel that evening classes might be of some help in the situation while one feels that work during the day is so strenuous that attendance would be questionable.

TRAINING
RECOMMENDED BY
DESIGNERS

Records were obtained from five designers. All of these feel that if school training for this field is developed, much emphasis must be put upon craft work. One notes that a course of six or eight months would be long enough. Three believe that an art-school training might be developed to prepare for the industry and that designs should be made for the market. One believes that no school could be of much help and that the industry must be relied upon for training, and that in-born qualities are necessary to make the designer. In order to insure growth and originality in her work one designer speaks of going to the museums and to places where she can hear good music. She believes that relaxation is necessary, that one cannot do good work in designing when tired.

MUSEUM
COLLECTIONS

Seven establishment representatives feel that collections of costumes and weaves would be very helpful to designers in the industry, and that such

collections should include photographs and reproductions as well as original costumes. Three express most interest in a costume library. In no case was the opinion expressed that the display of present-day artistic products would be of value and no one was found who felt that any existing museum supplies the needs of this branch of the costume trade.

SUMMARY

The task of creating elegant blouses for women's wear is one that requires delicate artistic feeling together with knowledge of making processes and the different effects obtainable by these processes. It is a more specialized problem than costume design but one scarcely less difficult. Knowledge of processes is fundamental and whether a school course that will combine practical work with instruction in design can successfully compete with practical training is a question not easily answered.

One leading establishment has derived benefit from employing beginning designers who have had an art-school training and has pursued this policy for several years. Such an example would seem to indicate that for the creation of the finest and most elegant products school training has a commercial value. It is apparent that the number of designers needed is too small to permit any special school provisions for this particular industry and if it is within the power of the school to make a helpful contribution in this field it would seem to be in company with the provisions noted under custom and wholesale dressmaking.

CLOAKS AND SUITS—WHOLESALE

**NATURE OF DESIGNS
USED IN
THE INDUSTRY** Cloaks and wraps demand the same frequent change in style that is exhibited in dresses and therefore call constantly for new designs. The design for cloaks is dependent upon changing conditions of living perhaps even more than dresses. As an example, the increasing use of automobiles has lately developed a demand for a summer wrap which can be readily put on while in the car and thrown aside when leaving.

This demand for variety of designs does not hold in the same degree with suits. In the American type of tailored suit the element of design is limited though exacting. The tailored suit manufactured and marketed in wholesale quantities is almost an American creation and one of the most conspicuous examples of our genius for quantity production. One element in the success of such suits is high quality of workmanship and the world-wide reputation for fine execution that has been gained for these products is a high tribute to our leadership in this field.

**WHERE DESIGNS
ARE OBTAINED** The term designer in the cloak and suit industry is applied to the cutters who carry out the ideas of the styler or whoever evolves motives for new designs.

All except two of the eleven establishments studied employ designers within their own staffs. One establishment which does not employ designers buys all designs and models in Paris, the proprietor of the other develops his own designs.

Nine establishment representatives report buying a considerable portion of their designs in Paris. Most of these have to be modified to meet American requirements, however. One representative states that he buys about one hundred sketches and one hundred models from Paris every year, the prices paid for the sketches ranging around \$5 and for models from \$150 to \$500. Three representatives consider European designs superior to those created in the United States.

HOW NEW DESIGNS ARE OBTAINED

The proprietor or styler decides upon the character of new designs. He brings these ideas to the designers or cutters either through a garment to be modified or copied or by means of a drawing, or imparts his ideas by word of mouth. Cases were noted in the cloak and suit industry where new conceptions were first worked out on paper within the establishments, but these were the exception and not the rule. The stylers were found to be individuals, frequently commanding large salaries, who had been developed through practical experience in the trade and oftentimes persons of wide experience, exceptional keenness of observation and artistic judgment.

In the smaller establishments and those manufacturing a low-grade product a styler is seldom found, and the cutter-designer himself develops the new designs.

WORK OF DESIGNERS The work of the designer so called in this industry is to translate the ideas of the styler or true designer into actual material through the development of a sample garment.

In the case of all tailored garments, the garment is usually first developed in canvas. The canvas is fitted to the model or manikin and corrected until it is exactly right. The canvas then serves as the pattern for the cloth model which in turn requires final adjustments. In some establishments, a small room is provided for the designers where they have at their disposal a large table, forms and quantities of paper patterns and other material. In other places, the designers are allowed only a portion of the factory floor in which to work.

TRAINING OF DESIGNERS

Nine establishments noted employ a total of twenty-five or more designers. Of these the large majority are persons who have worked up through the practical side of the trade and have taken courses in drafting, cutting and fitting in special schools.

Records were obtained from three free-lance designers. One of these was trained in Europe, wholly through commercial

practice, having had ten years' experience in practical designing in France. The other two were trained mainly through practical experience and through costume-design courses in an evening school in the United States.

REMUNERATION OF DESIGNERS

The salaries reported range from \$35 per week for beginners to \$15,000 per year for styler. The salaries most commonly given for designer-cutters are from \$3,000 to \$10,000 per year.

DEMAND FOR DESIGNERS

Two representatives report that the business of their establishments would be expanded if a larger supply of high-grade designers were available. Others express the opinion that greater efficiency and artistic results would be possible in their business if a higher grade of cutter-designer were obtainable.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

Practical tailoring, that is, training in cutting, fitting, draping, pattern grading, etc., is emphasized by the majority of the establishment representatives as the first essential in the training of designers for the cloak and suit industry. In addition to this, the artistic side of the designer should be developed by training in drawing and sketching, and study of the history of costumes, and of color.

Two of the establishment representatives believe that, if run on practical lines, schools should be able to train effectively young persons for beginning work as apprentice cutters with the opportunity of developing into designers. The others believe that a designer of cloaks and suits must work up in the trade, that school training is helpful, but that practical experience is of primary importance.

Eight representatives believe that employers should take young persons into the establishments and assume a large share of responsibility for their further training.

It is not generally felt that evening classes can be of service

in training designers for this industry. One representative states that this is because the people employed in commercial houses are generally not young enough. Another representative states that attendance upon night classes would be contrary to the rules of the unions.

TRAINING
RECOMMENDED BY
DESIGNERS

Training in the practical side of tailoring is emphasized by all of the designers from whom interviews were obtained. If school training is to be made effective, all believe that craft

work must be the basis—that there should be instruction in sewing, trade knowledge, drafting and cutting of patterns, fitting, and cutting of material. Three believe that the students should do marketable work while in school. From three to four years are given as the desirable length of school term.

The elements emphasized by the three free-lance designers interviewed are: a broad art training, including a study of the human figure, perspective, color, historic styles, as well as training in practical work in cutting, fitting, etc.

MUSEUM
COLLECTIONS

Only three representatives answered the questions in regard to the importance and value of museum collections in the training of designers for this

industry. All of these believe that collections of costumes are a very valuable source of inspiration and that they should be used extensively. One states that he considers such a collection the most important step that could be taken in improving costume design in this country. All believe that both originals and reproductions as well as photographs should have a place in such a museum and that present-day products should be included in such a collection. These representatives do not feel that existing museums meet the needs of the trade.

SUMMARY

The situation in regard to design in the cloak and suit trade represents highly specialized and somewhat peculiar conditions. In establishments producing a high-grade

product, new motives as to style and design are introduced by keen, experienced persons upon whose judgment the artistic success of the establishment depends. These ideas are interpreted in actual form by the cutters who bear the name of designers. Artistic results depend upon the former, technical success upon the latter. In the first group creative ability is not so much needed in this particular industry as keen observation of style tendencies and power to utilize every possible hint in a telling way in effective make-up.

In the second group thorough technical equipment and intelligence are first of all necessary. Beyond this, ability to sketch and to draw the human figure would seem to be extremely desirable.

These cutters or designers have usually been developed from tailors. Their technical equipment has been obtained in one of two ways: either by direct experience in establishment workrooms or by taking courses of instruction in drafting and cutting. These methods have served fairly well to supply technical knowledge. They obviously do not go far to guarantee intelligence or breadth of information in the workers.

Of late years a few young men have entered the trade after a course of training in a public day vocational school where they have received instruction in drafting and cutting. So far these young men have not graduated into designers, largely because they have not received the needed experience in tailoring in the establishments. The method of training represented by these young men, however, would seem to possess considerable possibilities. If on the one hand the school training which is now limited entirely to technical instruction and to one year in length could be extended to a longer period and made to include sewing and tailoring and instruction in sketching, drawing from the figure and study of costume styles and, on the other hand, if the manufacturers would agree to recognize this training as a basis and see to it that such school-trained graduates were given opportunities of apprenticeship in tailoring as assistant sample makers and later on, in the case of those showing capacity, were given

places as assistants to the designers, a natural and satisfactory source of supply might be brought into the situation. To develop such a school of instruction on an effective basis it probably would be necessary for the trades to contribute to the salaries of some of the instructors in order to secure experienced and capable persons.

This is evidently not an art-school problem. Any training to fit the situation must be based on technical instruction in drafting and cutting. This basic training undertaken in a school that is purely vocational in character and enriched by instruction in drawing and style study might develop not only a practical product but one capable of considerable after development.

RETAIL MILLINERY

NATURE OF DESIGNS
USED IN
THE INDUSTRY

The problem of high-grade millinery design differs somewhat from that of costumes in that the demand for novelty and fresh effects extends throughout the year and is governed very little by seasonal periods.

The influence of Paris is more strongly felt in the millinery industry than in any other of the costume trades. One or two high-grade establishments have broken away from this influence and are creating original styles, but the majority are still dependent almost entirely upon Paris for inspiration and ideas in the form of imported models. It is the usual custom of buyers to make semiannual trips to Paris to purchase the latest models and materials. Many of these models are copied exactly, but each French hat is liable to suggest a number of different compositions to the competent designer.

In addition to the designs gained from French hats, ideas are obtained from all conceivable sources—from historic costume documents, fashion magazines, museum collections, new fabrics and embroideries, and foreign travel. At times the detail on a gown will suggest a motive for a hat. In custom establishments where dresses and suits are made as well as millinery, designs are often created for customers who wish to obtain a hat to harmonize with an individual suit or gown.

In high-grade retail millinery the element of cost does not limit the designer to the extent that is true in the wholesale branch of the industry. In fact, in the most exclusive shops it may be said that practically no restriction faces the designer in this direction in the majority of cases.

WHERE DESIGNS
ARE OBTAINED

Seven retail millinery establishments were surveyed. One of these establishments had no designer except the owner. A total of fifty-five designers are employed by the remaining six establishments.

In the case of two firms almost the entire output consists

of hats which are either copied or evolved from imported French models. Three concerns purchase from ten to twenty-five per cent. of their designs from Europe. One firm purchases but a small percentage, and another purchases no designs whatever from this source. All of the establishments except the two last mentioned consider French designs superior to those produced in the United States.

The establishments develop or modify their designs within their own staffs, none being purchased from free-lance designers. The existence of designers outside the establishment is uniformly considered by the representatives as undesirable.

HOW DESIGNS ARE DEFINED

As stated above, in one establishment studied, the owner himself originates the designs. He is, therefore, at once owner, styler and designer. In this case copyists only are employed to develop the designs. In another firm producing a very high-grade product the person who supplies the motives is also the designer. Here also only copyists are employed. In the other firms, either a member of the firm or the head of the department defines the character of the style to be followed and brings suggestions to the designer. All of the establishments feel that the success of the design department depends very largely upon this person. Two of the stylers were artists, one in Paris and the other in the United States, before taking up millinery; another styler, a Frenchman, received his training under some of the best milliners in Paris. The remaining four were developed entirely through practical experience in the millinery business in the United States.

WORK OF DESIGNERS

The usual practice in millinery establishments is for the designers to sit at the head of tables around which are grouped a number of milliners. The designer develops the frame for a hat and selects the fabrics to be used which she pins to the frame. This is then turned over to one of the workers who makes up the hat in skeleton fashion and returns it to the designer for criticism.

Usually only a mere suggestion is given to the designer by the styler. The designers are generally allowed to select their own material and trimmings. As a rule the styler passes on the finished product.

The owner-styler mentioned above deals directly with his copyists. He indicates what is wanted and corrects the models until they meet his ideas. This individual states that his ideas are gained, outside of French models, from all manner of sources, particularly from a study of the antique. In addition he visits Spain and Italy and the southeastern countries of Europe, from which places he obtains suggestions that he modifies for American uses.

TRAINING OF DESIGNERS

Fifty-five designers are employed by the seven firms studied. Of these, three were trained in France and fifty-two in the United States. Records were obtained from six of the more important. Three were trained entirely through practical experience in the trade. One had an extensive art-school training before taking up work in designing. One designer worked part time in several of the high-class shops on Fifth Avenue and attended an art school and millinery classes during the remainder. Another learned the technical processes in a millinery workroom and later supplemented this training by attendance at an evening school for costume design in New York City.

The same system of developing designers within the establishment as described in the wholesale millinery study is followed to a smaller degree in the retail shops.

Five establishment representatives state that designers employed at a fixed salary are liable to fall into a rut unless their work is constantly criticized by the styler. Various methods are employed by establishments to stimulate their designers to further development. Among these are: arrangements allowing them to inspect the best styles from Paris, subscribing to the most authoritative style publications both here and abroad, keeping the designers posted as to which of their designs sell well and urging them to go to places that

more give them inspiration, such as libraries and museums, the new parts of a millinery at a slight cost.

Salaries of designers as reported vary from \$100 to \$150 a week for beginners to \$200 a week for experienced designers.

Advancing of recommendations are usually dependent upon securing new designers. One establishment representative states, however, that it is

more satisfactory to develop the girl in his own workroom because of the special knowledge thus imparted.

As in other branches of the costume trade, the demand in respect to millinery designers is not for more but for better designers. There is a constant need of talented inventive designers, possessing a thorough knowledge of practical requirements.

The opinion is expressed by all of the representatives interviewed that the present art schools do not furnish an adequate training for beginning work in the design department of a millinery establishment. Three state that they

do not believe in millinery schools as a basis for learning the trade. One expresses the opinion that a girl should first gain practical experience in an establishment and then if she shows ability should go to evening art classes for instruction in period costume design and historic motives. One representative says that if the same methods were used in schools that are employed in commercial establishments wonderful assistance would be rendered to the artistic side of the millinery trade.

Elements that should be observed if school training is to be developed are—composition leading to the study of line and mass in costume, color harmony, the history of styles and the ability to manipulate, compose and combine materials for light and shade and color effects. One representative emphasizes the need for cheerful surroundings if a designer is to do good work. Another states the opinion that young designers

are found to possess more enthusiasm for the creation of new ideas than older workers.

One establishment employs girls who are studying millinery in one of the advanced schools in New York City on a half-time basis. This policy has been pursued for two years, with a result that very good material has been found among these students. The other representatives feel that such an arrangement is difficult to carry into effect.

Three representatives feel that if experienced and competent persons can be secured as instructors in evening schools, much benefit will be derived by assistants in attending these schools.

**TRAINING
RECOMMENDED BY
DESIGNERS**

Five designers in millinery establishments expressed views as to the kind of training which would be most desirable for designers in this industry. Three believe in a day-school training, provided competent instructors can be had and instruction developed in line with the work done in commercial establishments. Two of these believe that such training would be of most value after a foundation of technical knowledge has been obtained in a producing establishment. Two believe that night-school training in design, supplementing practical work in an establishment, is the best means of dealing with the situation. These designers feel that it would not be feasible for students to make designs for the market while in school.

**MUSEUM
COLLECTIONS**

All of the establishment representatives feel that museum collections are an important means of education and source of inspiration to designers, and might be made even more so were collections of costumes and headgear included. Four representatives state that in such case the specimens should be originals, the other three state that while originals are preferable, good reproductions are also valuable. Five believe that present-day products should be included in the collections, while two do not. The opinion is generally expressed that the museums in Greater

New York are a source of much inspiration to millinery designers. One representative states, however, that when the museums of France are considered, one realizes that the New York museums are not entirely fulfilling the need in this direction. All believe that museums should be open in the evening.

SUMMARY

The conditions in the millinery industry seem to render impracticable any effective provision for training designers in a day school. Girls who go to millinery classes at from fourteen to fifteen years of age can only obtain a start in the practical side of the industry. They are too young and lack the background of experience for training in design.

It would seem evident that the designer must be evolved out of the craft worker in this industry by virtue of experience and natural talent. The essential practical training must involve many phases, and necessarily requires an extended period even under the most favorable conditions. In full measure it can apparently be given to best advantage only in commercial practice.

Furthermore, successful work in millinery design requires a fair degree of maturity. Not only practical experience is necessary, but a knowledge of different styles and methods of producing effects that can be gained only through a period of some years is essential. When these conditions are met workers will hardly be induced to turn aside for attendance in a day art school.

The situation would seem to point to the evening school as the only channel outside of commercial practice through which the artistic training of the designer can be furthered. Such classes have as yet hardly been attempted. It is very evident that to be successful they must be conducted by thoroughly competent persons, experienced in millinery technique and possessed of exceptional artistic talent. Such a combination can hardly be secured except through persons who are actually engaged in millinery design during the day and for such persons salaries proportionate to their earning power must be available.

WHOLESALE MILLINERY

NATURE OF THE DEMAND FOR DESIGNS In wholesale as well as in retail millinery there is a constant demand for novel designs. This demand is usually brought to the establishments by the buyers. Four or more lines are made up each year, and each succeeding line draws on the leading numbers of those preceding. In addition to the variation of the successful foregoing styles, inspiration for new designs is obtained largely from Paris models and trips to Paris.

WHERE DESIGNS ARE OBTAINED Designing staffs are employed by each of the seven establishments studied. With the exception of the French models purchased by these establishments, the designers are relied upon for new designs. One establishment making a high-grade product purchases no models or designs in Paris. All the other firms purchase from five to thirty-five per cent. of their needs in that city. All of the establishments, including the one which does not purchase French models, consider European designs superior to those produced in America. The owner of the last-mentioned establishment is known for her individual creations, for her unique embroideries and for the attractive ways in which she uses materials. She states that if her vocation were not so much that of an individual artist she would use French hats, for she thinks they are far superior to American designs. Another representative states that the French designs are only superior in dress hats, and that for tailored and sport models the American designs are best.

Emphasis is placed upon actual manipulation of materials as a source of inspiration for new designs. Fashion magazines, trade papers and museums are also mentioned by designers as valuable sources of inspiration.

HOW NEW DESIGNS ARE DEFINED In four of the firms the owner of the establishment defines the general character of the style to be followed and makes suggestions to the head

designer for new motives. The idea given by the styler is generally but a suggestion. This is developed by the designer, who selects the materials and colors, and works up the model to present to the styler for criticism.

In two establishments the styles are evolved by the head designers. In these cases the owners state that it is necessary for the designers to confer with them regarding their designs in order to obtain the merchandising point of view.

In one establishment the head designer supplies the new motives and passes upon the finished product. This styler-designer states that he obtains his inspiration for color combinations and for designs to be used in embroideries from old curio shops.

Three establishment representatives state that much of their inspiration comes from Paris models. One of these firms keeps a buyer in Paris all the year round who sends to them the best hats as they come out, and keeps the office posted through the mail on all new developments. Other stylers report that their inspiration is gained from observing smart people on the street, at concerts and musicales and from new materials and new trimmings.

In only two cases is the success of the design said to depend upon any one person. In the majority of cases it is felt to depend both upon the person who supplies the ideas and upon the designer who carries them out. All of the persons corresponding to stylers were developed through practical experience in the millinery business.

WORK OF DESIGNERS

No cases were found in the millinery industry where the designs were first developed on paper. The practice is similar to that noted in the study of retail millinery, where the designers sit at the head of tables around which are grouped the millinery workers. In large establishments the head designer occupies a separate room and the assistant designers preside at the tables.

TRAINING OF DESIGNERS

Thirty designers are employed by the seven wholesale millinery establishments that were studied. One of these designers was trained in the trade in

Paris, the others were all trained through practical experience in the millinery industry in the United States.

Very young girls are taken into the workrooms of large millinery establishments and taught to put in linings, to make wire frames and buckram shapes. They are taught how to take correct measurements of these shapes, an experience the manufacturers consider as most important groundwork for the beginner.

Eight or ten of these girls are placed at a table where a designer or head woman shows them just what to do and watches their work very closely. When they have mastered the making of frames they are sent to another table where under another head workwoman they are taught to put in facings and make underbrims.

From here they are sent to a table where they obtain the title of copyists. Here they are given models, either those evolved by the head designer or imported French models, which they are required to copy exactly. After this they are promoted to be trimmers and are given shapes, either blocked or hand-made and taught how to utilize to the best advantage the trimmings that are supplied.

After this training, those who show the most ability are given the opportunity to design, and when they are considered competent are allowed to go out into the market and purchase new fabrics and trimmings.

REMUNERATION OF DESIGNERS

Salaries of designers range from \$35 a week to \$10,000 a year. The average salary, however, is said to be about \$75 a week.

DEMAND FOR DESIGNERS

When an establishment is in need of a designer, usually a girl in the workroom who has shown natural aptitude for originality is developed as indicated above. Advertising and recommendations are also relied upon to secure designers.

In wholesale, as well as in retail millinery, the need is for more talented designers rather than for a large number of designers. The view is uniformly held that the wholesale

millinery industry would be much benefited if superior designers were available.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

None of the establishment representatives think that designers can be produced by the present art schools; they feel that capable designers must understand the practical requirements of the work in every stage, and that this training can be obtained only through experience in a commercial establishment. A large majority of opinion inclines to the evening school as the most practical way of developing the artistic training of designers. It is felt that a feeling for color and line and sense of proportion should be developed by such training. One representative believes that a school of allied arts would be desirable where a girl learning the art of making hats would also be in touch with those studying hand embroidery, the making of ornaments, or the study of textiles. He believes that knowledge of all these things is very desirable for the broadly equipped designer.

TRAINING
RECOMMENDED BY
DESIGNERS

Four of the designers from whom interviews were obtained believe that the training of designers for the millinery industry ought to be gained entirely through practical experience in establishments, under a good milliner. They state that millinery schools are not practical enough to be of much value and that it is necessary to undo much of the previous training of girls coming from art schools in order to start them right for commercial work. One designer believes that in the case of special workers who make ornaments or paint designs on material an art-school training is essential.

The other designers expressed the view that if day classes were taught by practical and competent teachers they might afford a valuable means of training. They feel that if students in such classes could be given materials that were suitable it might be practicable for them to make designs for the market during such training.

**MUSEUM
COLLECTIONS**

All of the establishment representatives express the opinion that museum collections are a very important feature in the education of designers, and that this influence would be extended if examples of both historical and modern headdresses were included, either as originals or reproductions.

The Metropolitan Museum of Art is mentioned by all the representatives as being of service in this direction, but the complaint is made that it is rather inaccessible for designers to visit during business hours. One also mentions the Museum of Natural History. All believe that museums should be open in the evening.

SUMMARY

The comments and recommendations made in the case of retail millinery apply to conditions in the wholesale trade with equal force.

TEXTILES

The textile product in the United States, according to the census of 1914, represented a value of \$1,574,633,569, and the value added by manufacture was \$600,670,828. The branches of the industry selected by the survey for study as those in which the element of design most affects the value of the product are printed and woven silk and cottons, cretonnes, tapestries, pile fabrics, embroideries and laces, carpets and rugs, and woollens.

In these various divisions the element of design plays an extremely varying rôle. In most cases, at least in dress goods, surface pattern, involving design in the ordinary sense, is of only secondary importance as a selling factor. For the most part the appeal and value of textiles depend, first upon the texture effect produced by the weave; secondly, upon the general color effect; and lastly, upon the pattern. This statement does not hold true of upholstery fabrics or of laces and embroideries, but it serves to show the relative position occupied by surface pattern design in a large section of the industry. In dress fabrics the production of novel and attractive texture effects through weaving and the nice adjustment of colors to the taste of the moment demand as much thought and skill as the production of surface designs. Such effects, however, do not require the services of the designer, as he is commonly termed, but are usually created by the technical expert at the mill.

A characteristic of the textile industry in America is quantity production. All of our silk, cotton, and woollen goods are woven in large quantities. Dyeing and printing are also effected on a large scale and many persons are, consequently, served by the same fabric or pattern. There is nothing in our practice comparable to the custom in Europe, where small quantities of decorated silk goods are often made to the order of some customer in order to secure an exclusive and distinctive design.

Among the textiles employing surface designs to a con-

siderable extent those which issue in dress goods for women's wear present a constant demand for new and attractive designs. This is to a considerable degree true also of printed cretonnes, where the demand for new effects is constant. In other divisions of the industry, which deal with upholstery textiles, carpets and rugs, fewer designs are called for and these make larger use of historic patterns.

PRINTED SILKS

NATURE OF DESIGNS USED IN THE INDUSTRY Printed silks, involving a high-priced fabric and one used largely for dress goods appealing to a well-to-do and a discriminating class of purchasers, are dependent to a high degree upon quality and novelty of design. Weave and color must show a sensitive response to the trend of fashion. Pattern must also follow this lead closely. The styles of the costume industry have, in this way, a strong influence on the styles for printed silks. A coming era of loose coats and capes for women produces a strong activity in printed silks for linings. If the fashion dictates blouses of sheer material, designs for crêpes and voiles will be in order. On the other hand, a tendency towards simple tailor-made styles will reduce the consumption of large-pattern silks and call for more subdued stripes and dots.

Designs intended for printed silks, as also for other printed textiles, are less conditioned by the character of the processes of production than is the case of designs for woven patterns. In the case of designs for printing the principal elements for consideration, outside the quality and timeliness of the design, are the size of the design as related to the size of roller, arrangement for repeat, and the number of colors desirable. The nature of the fabric also has to be considered, as the resultant effect of a printed design is largely influenced by the surface texture.

WHERE DESIGNS ARE OBTAINED Before the war, designing for the silk industry in this country was in a state of almost entire dependence on the designs and styles of Europe. Trade papers were full of reports such as, "Maison X features for the coming season large floral designs on a dark background," and these reports formed an unwritten law for most styler of silks in this country. The styler's main activity consisted in devising ways of economic production and adaptation of the

suggested type of design to his particular market. In most cases designs were bought from commercial design studios in Paris, but as the majority of American stylers lacked the courage to buy anything that was not represented by goods already successfully on the market in France, American textiles were liable to be a half or a whole season behind the French styles.

In those days, American establishments often employed one or two so-called designers whose efforts consisted merely in redrawing these French ideas, either enlarging or reducing them to the size of American repeats or else adding or subtracting a number of colors as the case might be. In addition to designers employed in the establishments, there were a small number of professional design studios which imported and sold original French designs and also made variations of these designs which were offered to the trade; firms using only a limited number of designs in a year made special use of their services.

The practice was also very general on the part of American firms, and for that matter is now, of subscribing to what are termed "foreign sample collections," which are small samples of recently issued European printed silks and other textiles.

A few years before the war efforts were made by a small number of American manufacturers, producing high-grade silks, to develop in their establishments true designing staffs which should be able to supply original ideas and designs independent of the European market. This effort was generally assisted by the fact that at this time the methods of printing silks in America were greatly extended and improved. As a consequence, greater complexity and beauty of designs for printed fabrics became possible.

With the breaking out of the great war and the increased need for designs, professional design studios gained a much more important position in the trade, both in regard to the quality and to the quantity of work produced. The success of these combined influences is evidenced by the fact that today American printed silks are competing successfully with those of other countries.

In the production of designs for American printed silks today the practice, as will be seen from the analysis later on, is still divided, some few firms relying entirely upon European designs while a number of establishments that is gradually increasing, are resolutely devoting themselves to the production of designs by American designers, through their own staffs, supplemented by purchase from commercial studios and selected free-lance designers.

Of the twenty-two establishments producing printed silks, from which data were obtained, only four now use in their output any considerable number of designs purchased in Europe. Nine of the concerns interviewed consider that European designs are superior to those obtainable in the United States. The majority subscribe to the foreign collection service.

Of the twenty-two establishments, eight employ their own designers. Seven of these manufacture a high-grade product. Fourteen other establishments obtain their designs wholly from commercial studios or from free-lance designers.

All of the establishments consider that the existence of outside commercial designers is desirable and valuable. They cite as advantages that few establishments can afford to employ within the organization a sufficient number of designers to give the variety offered by these outside sources of supply. Some of the establishment representatives favor the product of the commercial studios, some believe in patronizing a few high-grade free-lance designers, while a number of others—generally those not maintaining staff organizations—are indifferent to the source from which their designs are obtained as long as they are brought to them in sufficient number and variety.

The number of designs purchased yearly by each of the fourteen firms relying entirely upon outside sources of supply varies from fifty to five hundred. The prices paid vary from \$5 to \$85. The most common indication is from \$10 to \$35.

It is generally stated that but a small proportion of the

designs so profusely submitted by free-lance designers are acceptable for trade purposes. Most of the designs purchased from these sources need some modification to meet the requirements of production. This may relate to the element of color or to changes concerned with the technical limitations of printing.

HOW NEW DESIGNS ARE DEFINED

In all establishments a styler is employed who in addition to passing on the weave, defines the character and motive of the surface design to be developed or the selection of those that are purchased. All representatives agreed that the success of the art policy of the establishment rests largely upon this person. Only one case was found where the styler had had an art-school training. In all the other cases they had been developed through practical experience in various departments of the business.

TRAINING OF DESIGNERS

The eight establishments employing designers of their own total forty-six designers. Thirty-six of these were employed by the seven firms making a high-grade product. Data were obtained in regard to twenty six. Nine were trained in Europe and seventeen in the United States. Of those trained in Europe two were educated in art schools, four in textile schools and three in design studios. Of those trained in the United States twelve were educated in art schools and five in design studios.

Four of these firms make a practice of employing beginners direct from art schools in their design department and three do not. No definite practice obtains as to the minimum age at which such art-school students are admitted and very little information was obtained in regard to the salaries paid—\$18 and \$20, however, were mentioned by one firm. There would seem to be no definite scheme of salary progression for such young persons.

The establishments employing designers quite generally express the desire to stimulate their designers to further development by making provisions for them to visit museums,

exhibitions, and libraries. It would seem to be true, however, that much of this good intention is dissipated under the pressure of commercial requirements. Several representatives agree to the importance of giving designers considerable freedom in their work and maintaining cheerful conditions in the designing room, but, on the other hand, they emphasize the difficulty of maintaining a separateness of attitude under the usual conditions of production.

Data were obtained from eleven design studios that make designs for printed silks. Certain of these studios are operated by designers under a partnership arrangement so that information was obtained concerning the training of fourteen studio heads. Five of these received their entire art training in Europe, in art or technical schools or artists' studios. Two others, in addition to training in an artist's studio abroad, attended art schools in the United States. Six were trained wholly in the United States—two in art schools, two through practical work and evening art-school instruction, and two in design studios. One other studied abroad in an art school after an art-school experience in the United States.

Three of the studios do not employ a staff of designers. The other eight employ a total of 107 designers. Of these, twelve were trained in Europe, nine in art schools and three in design studios. Of the ninety-five designers trained in the United States twenty-five were trained wholly in design studios, fifty-one in design studios and in evening art schools, and nineteen attended day art schools.

Of the twelve records of free-lance designers working for silk establishments, three indicate training in Europe and nine in the United States. Of those coming from Europe one was trained in an English art school, one in German industrial art schools, and one in a French studio. All of those trained in the United States have taken more-or-less extended courses in art schools.

REMUNERATION OF DESIGNERS

The remuneration for establishment designers runs from \$25 to \$75 per week, the indication commonly given being from \$35 to \$50. Little light was

obtainable as to the maximum salaries paid designers. Three answers given were \$2,500, \$3,750 and \$5,000.

DEMAND FOR DESIGNERS

A majority of the representatives interviewed, emphasized the opinion that the industry stands much in need of a comparatively small number of highly trained and talented designers. Eight representatives report that the business of their individual establishments would be expanded if a larger supply of high-grade designers were available. Seven of the establishments so reporting manufacture a high-grade product. Three of the eight establishments employing designers considered that the present methods of supply afford a fairly satisfactory opportunity for obtaining young persons of talent in sufficient numbers to meet the needs of their organizations.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

In regard to the equipment that should be developed by training, emphasis is laid equally upon the need for a generous background of artistic culture and of technical knowledge required for manufacture.

On the first side it is pointed out that European designers have advantage over those in America in the very atmosphere of European life, with its museums, exhibitions, theatres, concerts, etc., which all contribute to stimulating the designer's artistic imagination.

The question "Can a satisfactory and effective training for beginning work in the design department be secured solely through art schools to which young persons go for several years before obtaining any practical contact with commercial work?" is answered by a large majority in the negative with the almost uniform statement that students coming from such schools lack the technical knowledge necessary for commercial work. The statement is also made that such training would be effective if the schools were carried on in the fashion of the European art schools.

In three cases the opinion is given that present art-school

training forms a fairly effective basis for the work of the designer, provided graduates are given helpful and sympathetic instruction as to technical requirements in a commercial organization.

Practically uniform opinion emphasizes the value of including craft work dealing with the elementary processes of textile printing.

The same almost uniform expression of opinion emphasizes the value of making a certain number of designs for sale as a feature of school work. The point is made, in many cases, however, that this work should not take place too early, but should be given in the later period of the school instruction and that each design offered for sale should be approved by the instructor.

The proposition that students might put in a certain amount of time at regular intervals in the design room of a commercial establishment while in school is uniformly considered as impracticable.

Representatives of establishments maintaining staff organizations agree that no system of training can be complete or satisfactory without a willingness on the part of the employer to admit young persons into the design department and assume responsibility for their further development.

In the case of certain establishments depending upon freelance designers, the opinion is expressed that art schools should duplicate practical conditions and give a complete training for practical work. In two cases representatives of such establishments expressed the conviction that there is no need for the commercial establishment to undertake any responsibility in regard to forwarding the education of young designers.

Not all of the representatives gave definite opinions as to the value of evening classes. The majority of the opinions expressed state that evening classes would be helpful in broadening the designer's viewpoint and in giving him a larger background of artistic culture. Only one expressed the view that technical instruction should be given in evening classes.

TRAINING
RECOMMENDED BY
DESIGNERS

Nine of the thirteen establishment designers interviewed emphasized the need for a fundamental training in art followed by a specialized course in some particular field of design presided over by an instructor thoroughly competent in his knowledge of commercial requirements. They all feel that the instruction should reach the point where practical commercial designs are produced.

Ten studio directors expressed views on the training desirable for designers in this field. Of these, eight were of the opinion that study in a day art school which should first provide instruction in drawing and color, including studies from nature, conventionalization, composition and period ornament, followed by specialized work in textile design offers the best foundation. Six stated that the course would require about four years. Two were of the opinion that the first training in drawing and color should be obtained in a high-school and that the subsequent art-school training might be compassed in two years.

All emphasize the conviction that the special instruction in textile design should be given by a person of high ability as a designer and one thoroughly conversant with the technical and market requirements in this field. They stated that the salary for such an instructor should be at least \$7,500 a year for full time. Five of these directors believe that craft work illustrating textile printing processes should be given in connection with the school training. Five believe that designs should be made for the market by students if their sale is controlled by the school and students are not allowed to "peddle" these designs themselves.

Two of the directors expressed the belief that the best training can be had in a design studio, supplemented by instruction in evening art classes. Three others refer to the value of evening classes.

The ideas expressed by the twelve free-lance designers interviewed as to school training, take the following form: All

believe that art-school training is the desirable foundation for design work in this industry; eleven believe that general art training should precede special work in design, although the value of approaching the entire school training from the standpoint of composition and decoration is strongly emphasized in several cases; nine believe that craft work should be an element in the instruction for this field of design; all believe that students should work upon designs for the market during their school training but that this should be attempted only in the later stages of the course and should be controlled by the school. Three to five years is mentioned as the desirable length of school term. Three emphasize the desirability of entering technical departments of productive establishments after the school training.

MUSEUM COLLECTIONS

Almost uniformly the representatives expressed the conviction that a museum containing extensive collections of textiles arranged historically would constitute a very important element in the development of artistic designers. Two say that such collections are of no importance.

Expressions in regard to the value of such a museum are as follows:

"The work along these lines of the existing museums has undoubtedly been very creditable considering the little encouragement they have had. I consider the value to the trade of a textile museum in this city (New York) would be far greater than anyone can imagine."

* * * * *

"We all learn from observation, and if we have such a textile museum we will have material for observation which would be an inspiration. If we are to compete with foreign markets, if we are to keep ahead of the foreign designers, we must have some such inspiration to offer to our future generations and no better form could be found than a textile museum that would be open in the evening even in preference

to the day time, to give those who are confined to their work an opportunity of obtaining this wonderful schooling and inspiration on either evenings or Sundays."

* * * * *

"The great opportunity which Lyons and Paris have had for many years is their opportunity to refer to records of previous periods. If a Parisian styler feels that the tendency is towards a Pompadour period, he can refer to the records in Paris and Lyons, and in this way obtain the inspiration of original creations."

With few exceptions the opinion is expressed that such collections should consist of both originals and reproductions with the emphasis upon originals when obtainable. The majority of those expressing opinions as to whether such a museum should provide for the display of present-day artistic products take the negative side.

Ten of those interviewed expressed the feeling that no existing museum in Greater New York meets the requirements of the textile trades. One believes that the Metropolitan Museum answers this purpose.

The majority of opinion was decidedly toward the opening of such collections in the evening. One statement is to the effect that such collections should be open rather on Saturday afternoons and Sundays because of the value of the daylight.

SUMMARY

It would seem clear from the above facts that the relation between the creation of designs and their marketing in the printed silks industry are not such as to tend surely to a constant and natural advance in artistic standards. While several progressive and high-grade establishments have developed their own design organizations, such establishments, because of the insistent demand for new and fresh ideas in this field, are always compelled to purchase a proportion of their designs from outside sources.

The commercial studio, on the other hand, while it has reached in certain cases a high development as an organiza-

tion, has not reached a position such as it occupies in Paris, where it has in a full degree the confidence and patronage of the trade. These conditions result in a situation where the work of the free-lance designer figures very largely, a considerable number, perhaps a majority of all the firms studied, relying entirely upon this source of supply.

As has been indicated above, a few of these designers are persons of liberal art training and high order of ability. These undoubtedly exercise a beneficial influence upon the situation. The large dependence, on the other hand, upon a considerable number of only moderately, if not poorly equipped free-lance designers is not a condition that makes for progress. With an expensive material, calling constantly for novel and elegant designs, and with this demand strongest in the establishments manufacturing the highest-grade product, it is very evident that the critical need is not for a large number of mediocre designers furnishing designs at small prices, but for a few highly trained and talented designers capable of producing superior and original creations. For such designs leaders in the industry are apparently ready to pay well.

There would seem to be two problems presented: first, a better coordination of design producing agencies with manufacturing establishments; second, more thorough and efficient methods of training a comparatively few high-grade designers.

Under the first head it is not clear whether economic conditions will allow much further development of the establishment designing staffs. This is a question that only the trade can settle. The value of such staffs, however, as a center through which individual effort can be expressed would seem to be indisputable.

The other large possibility which would seem to make for progress is further development and recognition of the commercial studio. Such development and recognition can, of course, come only through the quality of product and the business integrity with which such studios are administered. It would seem to be a fact, however, that outside of establishment organizations such studios offer the only opportunities

either for giving young people adequate technical instruction and guidance after leaving school or for bringing to bear upon the situation as a whole competent, expert knowledge and talent.

As to the problem of training the superior designers needed for the industry, it is well to consider the situation in New York City by itself. This city has become the great center of textile designing in the United States and presents opportunities for dealing with this problem of training that do not exist in any other place. Because of these facts there would seem to be not only the need, but room, for further provisions than exist at the present time in the city for training high-grade designers for the trade. The training most needed would seem to be one that shall serve to carry a comparatively few of the more capable art-school graduates beyond their present equipment and which shall provide among other things an understanding of the technical requirements of production sufficient to allow them to interpret the styler's requirements effectively. The kind of organization in which such a training might be effectively carried on will be discussed under Provisions for Training Designers for Printed Silks, Printed Cottons and Cretonnes on page 71.

PRINTED COTTONS

NATURE OF DESIGNS
USED IN
THE INDUSTRY

Designs for printed cottons are subject for the most part to the same considerations as prevail in the case of printed silks. Cottons, being less expensive than silks and used by more varied classes of people, require greater range in quality of design. In cottons, as well as silks, weave and over-all color are the first consideration, and the relation of the printed design to the weave and quality of the cloth is a matter of first importance.

The trend of styles in the cotton industry is influenced to a great degree by the silk industry; that is, the fashions created by silks are, to a large extent, carried into cottons.

WHERE DESIGNS ARE
OBTAINED

Of the thirteen establishments manufacturing printed cottons from which data were obtained, ten employ no designers, obtaining all their designs from commercial studios or free-lance designers. In either of these cases the designs are brought to the printing houses and selections made by the production manager or styler.

The average cotton converter purchases 150 to 250 designs a year, paying from \$10 to \$60 per design. The claim is made that this practice allows selection from a larger variety of patterns than by the employment of one or two staff designers. One firm reports spending \$9,000 for designs in 1920. A large proportion of these are stated as being satisfactory, although the color schemes sometimes require change.

One firm purchases practically all of its designs in Europe. Twelve of the firms report that the inspiration for new designs comes largely from European samples. At the same time only three representatives state that they consider European designs superior to those obtainable in the United States. The explanation of this seemingly contradictory situation is that foreign designs are considered generally to be superior in line and variety of ideas, but they need to be modified to suit the American market.

Nine of the representatives consider the existence of designers outside the commercial establishments as desirable. Four answer in the negative. The eight designers interviewed report that they obtain their ideas for developing new designs from foreign samples, textiles collections, books containing old textile designs, and from contact with the dress and textile styles exhibited in stores and on the street.

HOW NEW DESIGNS ARE DEFINED

Suggestions for new styles are generally brought to the trade through salesmen, who reflect the demands made by the costume trade and the

cutting-up houses.

In eight cases a styler determines the character of new designs brought out. In other cases the production manager or member of the firm selects the designs. Where the stylers exist, they have almost universally been developed through practical contact with the business. In only one case had the styler been educated in an art school, that being an industrial art school in Switzerland.

TRAINING OF DESIGNERS

The three establishments employing designing staffs total thirty workers. Sixteen of these received their training abroad in French textile or art

schools. Fourteen were trained in the United States. Of these eight received their first training in textile schools, one in an art school, and five through experience in the mill.

In no case was the practice reported of employing beginners direct from American art schools in the design department. In one establishment it is the custom to develop an office boy, preferably one with a high-school training, into a designer.

Of the eight designers from whom records were obtained, six attended art or textile schools either in this country or Europe. In one case the designer served as an apprentice in the textile trade and obtained his art training at an evening school. Those educated in the Lowell School of Design and in European textile schools speak of the practical instruction

in technical processes of production as being a valuable part of their school training.

Many designers for printed cottons have been trained in commercial studios under a professional designer at the head who possessed, besides artistic ability, an intimate knowledge of technical requirements of design and a keen observation of the trend of fashion. Such studios draw to a considerable extent on art-school graduates for their workers.

The studios making designs for printed silks also make those for printed cottons and the records as to staff training may be found under the former study.

REMUNERATION OF
DESIGNERS

For beginners \$12 to \$18 a week are given as wages paid; \$2,000 to \$3,500 are reported as salaries paid designers.

DEMAND FOR
DESIGNERS

The establishments maintaining designing staffs and the studios report that they are able to obtain designers in sufficient numbers but that it is

difficult to secure a high order of talent. The other establishments report that the commercial studios and free-lance designers supply their needs sufficiently and satisfactorily.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

The representative of one firm feels that a satisfactory and effective training for beginning work in the design department can be had solely through art schools which do not involve practical work. With this ex-

ception all unite in the opinion that art schools, as organized today, do not furnish the technical knowledge necessary to develop practical designers. Ten believe that craft work dealing with the elementary principles of printing and weaving would be of much value as an element of instruction in the art schools.

The opinion was frequently expressed that criticism and suggestions by persons familiar with commercial requirements would be of great value in the student's education.

All believe it desirable and feasible to have the students

in such schools make commercial designs for sale while in school. A number modify this statement by saying that designs should not be made too early in the course and that such designs should be passed upon by the instructors.

In five cases the feeling was expressed that a necessary element in the development of good designers is willingness on the part of employers to admit young persons to the design departments and assume responsibility for their further development.

Only four expressed the opinion that evening schools could be of help in this particular connection.

TRAINING RECOMMENDED BY DESIGNERS

Six of the designers interviewed state that the best training for their work would be obtained in an art school training that specialized in its later work and produced commercial designs for the market. Two designers believe that the best equipment can be obtained through training in a design organization in a commercial establishment, accompanied by attendance upon evening school. Three state that craft work would be of value.

Views of the studio directors concerning the training of designers are noted under the study of printed silks. They almost uniformly favor study in a day art school as offering the best foundation for work in this field. They believe that the fundamental courses should be succeeded by specialized training in designs for printed textiles.

MUSEUM COLLECTIONS

Twelve representatives report museums with textile collections as a very important element in the development of design. One states that such collections are not so vital for the cotton industry as for the silk.

Seven state that such collections should be made up of originals wherever possible; six believe that reproductions, photographic or otherwise, are of great value. Twelve report that present-day products should have a place in such collections.

Ten express the opinion that no existing museum in Greater New York entirely fulfills the needs of the industry, and four

that the Metropolitan Museum and the Museum of Natural History perform an important service in this direction.

Twelve believe that such museums should be open in the evening, and two feel they should also be open on Sunday.

SUMMARY

Designs for printed cottons at the present time are very evidently dependent to a large extent upon French inspiration. The patterns that today issue in American printed cottons are very generally modifications of designs originated in France.

The relation between the creation of designs and their marketing in this industry is very similar to that in the printed silk trade. One important firm employs an ample force of designers of which about two-thirds have received sound artistic and technical training in France and one-third of which has been trained in art or technical schools in the United States. With only two exceptions, the remainder of the producing and converting establishments depend upon studios and free-lance artists for their designs.

There would seem to be more reliance upon well-equipped commercial studios in this industry than in that of printed silks. The more-or-less hand-to-mouth dependence upon the free-lance designer is, nevertheless, very prevalent. Designs from this latter source have generally to be modified, and often receive such modification in the commercial studios. The limitations of such a system have already been noted. On the one hand, it carries no guarantee of progressive artistic standards; on the other, it lacks provisions for developing our young art-school graduates to the point of real efficiency and it involves great waste of artistic talent.

The need of the situation would seem to be very similar to that in the field of printed silks, namely, for a method of developing a relatively few skilled and broadly cultured designers who can be counted upon to develop designs equal to those produced in France. Such designers are evidently not produced in the present art schools, and there would seem to be a similar need and opportunity for the training of such designers in the city of New York as is represented in the field of printed silks.

CRETONNES

NATURE OF DESIGNS
USED IN
THE INDUSTRY

The cretonne industry exhibits a lively demand for new designs, as the call for new effects in these fabrics is constant. In cretonne designs color is of prime importance, as these fabrics are generally used for hangings or coverings as part of a general scheme of room decoration. Because of this fact, designs for such goods make considerable use of period motives. Larger effects are used than is the case with dress goods, and drawing, consequently, becomes more important.

WHERE DESIGNS ARE
OBTAINED

Of the nine establishments studied, five employ designing staffs. The other establishments purchase their designs from Europe or from commercial studios or free-lance artists in this country. The practice of subscribing to foreign sample collections is very general. Three representatives consider that European designs are superior to those obtainable in this country, while six answer this question in the negative.

One firm reports having formerly employed three designers, but found that their output became too narrow after a short time, and that after a few years the work produced was very limited in variety. They therefore abandoned their own design department and since purchase their designs outside.

Four establishments purchase all their designs from commercial studios or free-lance artists in this country. The number purchased by different establishments runs from sixty to 200 a year. The prices paid are reported as \$25 to \$60 for each design.

Four of the establishments consider the existence of designers outside of the commercial establishments as desirable, the great variety of designs submitted in this way and the opportunity for selection being great advantages from the standpoint of the manufacturer.

Books, museums, and nature study, are the principal elements noted as sources of inspiration for designs.

HOW NEW DESIGNS
ARE DEFINED

In each case a styler gives the key for new design motives and upon this person depends, to a very large extent, as in the other textile trades, the quality of the design output of the establishment. The styler, in each case, is reported as being developed through practical experience in the business.

TRAINING OF
DESIGNERS

The five establishments maintaining designing staffs of their own employ a total of nineteen designers, of whom fourteen were trained in art schools and three in textile schools in the United States and two in European art schools. One firm is in the habit of giving its designers one free day a week to visit museums and to seek other sources of inspiration.

Eight of the eleven free-lance designers for this trade were trained in art schools in the United States; one studied in a technical art school in Paris and later attended evening classes in an art school in the United States; one was trained in a technical art school in Ireland; and one was trained in technical art schools in Switzerland, Germany and England.

Lack of artistic culture and lack of knowledge in regard to technical processes are cited as weaknesses in the free-lance designers.

Data were obtained from twelve directors of studios that make designs for cretonnes. Six of these were trained wholly or in part in Europe, either in art schools or in studios; six were trained wholly in the United States, two in day art schools and four in design studios. Of the latter, two had evening art-school instruction.

One hundred and nine designers were employed by the nine studios represented. Ninety-five of these were trained wholly in the United States, nineteen in day art schools and seventy-seven in design studios. Of the latter number fifty-two had evening art-school instruction. Thirteen of these designers were trained in Europe, ten in day art schools and three in design studios.

REMUNERATION OF DESIGNERS

Salaries reported vary from \$600 to \$1,000 per year for beginners to \$6,000 for a head designer.

DEMAND FOR DESIGNERS

Two establishment representatives report that the business of their individual concerns would be expanded if a larger supply of high-grade de-

signers was available.

A majority state that the methods of training at the present time do not afford an adequate supply of well-equipped young persons to enter this field.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

Five establishment representatives report that art schools, as they exist today, do not effectively train designers to begin work in the design department. They state that the training given today is only a foundation to

which practical instruction should be added to make successful designers. They express the opinion that the elements of craft work would be valuable as a feature of instruction in art schools in connection with instruction in cretonne design.

Five of the establishment representatives believe that the school work should be carried to the point of making designs for the trade, but that this work should be carefully supervised and passed upon by the instructor.

One is of the opinion that the best preparation would be obtained by training in an art school, followed by an apprenticeship in a well-established design studio.

TRAINING RECOMMENDED BY DESIGNERS

Opinions in regard to training gathered from designers, both staff and free-lance, place the emphasis upon broad art-school training followed by specialized instruction. Two to

five years are stated as the desirable length of time for school instruction.

Drawing from nature, conventionalization, and historic

design are the elements emphasized as of most value. The majority of the designers believe that craft work should be a feature of the instruction.

All emphasize the value of working upon designs for the market during the later stages of the school training.

The belief, in three cases, is expressed that evening classes would be of assistance in the further development of designers.

MUSEUM COLLECTIONS

All representatives report that museums with textile collections are very important. These collections, in their judgment, should be made up of both original specimens and reproductions. All believe that such collections should contain present-day products. The Metropolitan Museum and the Museum of the Brooklyn Institute of Arts and Sciences are stated, in two cases, to meet the needs of the trade to some extent. One speaks particularly of the helpful work done by the Boston Art Museum in their textile department.

SUMMARY

A larger attempt is apparently being made to develop American designers for printed cretonnes than in the case of other printed fabrics. A considerable number of the more important producing establishments employ designing staffs composed largely of persons trained in art schools in the United States. The design studios furnishing designs for this trade are also mainly composed of American-trained designers.

The industry still depends, however, for a considerable proportion of its designs upon free-lance artists. Many of the considerations noted in regard to this practice in the discussion of printed silks and printed cottons apply also to this field.

The regular training furnished by art schools, because of the nature of the designs and the small dependence upon the movements of fashion, apparently meets the requirements of this industry more fully than in the case of printed silks and printed cottons.

It would seem to be a fact that if provisions are established

in New York City for training high-grade designers for the printed silk and cotton trades, that such provisions could well include, as a minor element, the training of designers for cretonnes.

PROVISIONS FOR TRAINING DESIGNERS FOR
PRINTED SILKS, PRINTED COTTONS, AND
CRETONNES
SUGGESTED FOR NEW YORK CITY

As has been pointed out in the studies of the above industries, there would seem to be a real need for some provision that will carry the design training of a comparatively few talented students beyond the instruction afforded in the present schools of applied art in New York City. Such provisions could conceivably be developed in one of the following ways: (a) in the present schools; (b) in a new school supported by the state; (c) in a school supported by the municipality; (d) in a school supported by the trade; (e) in a combination of these agencies.

(a) The objection to this proposition is, that the numbers liable to be found in any one school desiring such specialized instruction would probably be too small to warrant the expenditure of time and money required for thoroughly high-grade teaching. The equipment desirable to make such instruction thoroughly competent on the technical side would require a considerable outlay and even were sizable classes available the salary for a competent instructor is a very large burden for any such school to assume. To expect these schools to develop further specialized instruction with its requirements of expensive instructors and, possibly, of equipment, would hardly seem warranted.

(b) The question of a school under state auspices is considered here because such a school has been mentioned in the plans of the State Department of Education. Standing by itself, a school of this kind, although it might bring liberal possibilities in the way of equipment and housing, would hardly be in a position, when the grade of state school salaries is taken into account, to offer remuneration adequate for instructors competent to deal effectively with this particular situation. On the other hand the need represented by this special case does not warrant by itself the organization of

an entire school. Unless intimately associated with advisory guidance and support on the part of the industries, a state school would apparently add little to the situation represented by the present institutions.

(c) The question of a municipally supported industrial art school in New York City is one that deserves serious consideration. In this great center of design related to industries involving on the whole vast expenditures it would seem to be a legitimate and desirable educational provision and one warranting the expenditure of taxpayers' money. On the other hand, such a school in this connection would face the limitations noted above in the case of a state school.

(d) In many ways a school supported by the industries represents the most practical solution of the problem, yet in this connection there are grave difficulties that should not be underestimated. First is the difficulty of concerted organization in regard to the support of such a school, involving as it does the expense of quarters and equipment and the salaries of instructors. Lack of assured permanence of such an organization is also one of the serious questions involved. There are undoubtedly further questions of an important nature, among which is the danger that instruction in such a school would be bent toward merely temporary trade needs rather than towards a larger vision of artistic ideals.

(e) In many ways the most practical solution of the problem of training needed in the fields of printed silks, cottons, and cretonnes, would seem to lie in cooperation between a school already established and the trades concerned. Could the quarters be provided for instruction in such a school and the salaries of the teaching staff met by the trade, a practical combination might be achieved.

In this connection it should be noted that in 1919 the Board of Education of New York City, acting on the recommendation of associated textile manufacturers, established a city textile high-school. Machinery and apparatus totaling a value of over \$75,000 were donated by these associations to the school. The school devotes its main energies to training

technical workers for the textile trades, but also affords instruction in textile design of a somewhat elementary character.

It might be possible that quarters could be secured in this school for the conduct of advanced instruction in textile design. One obvious advantage of such an arrangement would be the availability of the extensive equipment of textile machinery possessed by the school and the possibility of instruction dealing with technical processes.

Although the need for understanding of technical processes on the part of designers for printed textiles is not extensive there is certain fundamental knowledge which is of much importance to the effective approach towards the design problem. In the case of printed textiles this comprehends acquaintance with the various materials and weaves with special consideration of their relation to applied color, the methods of textile printing and dyeing, and the elements of the chemistry of printing and dyeing, with special relation to the color effects obtainable in printing. For those studying woven pattern design there is needed a knowledge of the principles of Jacquard weaving and the extent to which the design is affected by this process. Opportunities for such courses could probably be obtained at the textile school.

More important than the mere machinery of organization and equipment of such a school is the nature of the student body and the method of work to be pursued. Mere establishment of another school or class in this field is not in itself of great significance. The success of such a venture would depend entirely upon the character of work developed.

The solution of this particular problem would seem to lie in the development of a special school or class devoting its entire attention to the training of textile designers. To secure the best results it would seem essential that such a school should organize its instruction on the basis of advanced or graduate work and should require a broad art training for admission. Its instruction should be intensive and concentrated. The training afforded should not only offer the benefits of specialization, but should give the advantage of many-

sided contact with the various requirements of the whole textile trade.

Two elements demand chief consideration. First, is the economic, which means that few students can afford to extend their training beyond that of the regular art school into another period of non-remunerative education. Such a plan should consequently provide, either through scholarships offered by the industries, or through opportunities for remunerative work in the courses of instruction, some possibilities of at least partial support to the students. Second, is the fact that very special methods of instruction are essential to secure the results desired. It is evident that the training should be conducted in an atmosphere which will give, as far as possible, all that the trade needs and at the same time conserve artistic ideals.

The conditions most desirable to establish are those which approach closely to the situation in a design studio with a high quality of guidance, both artistic and commercial, and where education making toward higher and finer standards can be gained while engaging in productive work. This latter provision is considered of essential importance in meeting both the educational and the economic needs of the situation. There would seem to be no question that such a special school could bring its instruction to the point where students are able to produce designs that are thoroughly usable for commercial purposes and command a commercial value.

The best practice of the vocational schools of the country for a number of years past has been based upon the principle that only through the production of commercial work can trade instruction be made thoroughly efficient and the requirements of actual practice be brought home to the students. The same arguments would seem to apply, with even greater force, to the training of designers, and inasmuch as the only competent test of fulfilling commercial requirements is the salability of the product, it would seem to be very desirable that the practice at least in a limited degree of making designs for the market should be developed in such schools.

To devise means for support and to supervise and direct instruction under such a plan, a trade committee representative of the printed-textile industries and consisting of persons intimately associated with the problem of design would be necessary. Upon such a committee would devolve the contractual relations with the authorities, of the school elected, the financial problems involved, conditions as to selection and admission of students, plan of instruction to be pursued and methods by which intimate relations with the industries could be maintained and a certain amount of the product of the school assured of sale.

WOVEN PATTERN SILKS

NATURE OF DESIGNS
USED IN
THE INDUSTRY

Silks, in which the element of woven pattern is the distinctive feature, may be classified for the purposes of this study into those in which the effect is gained through varied warp and woof produced in ordinary looms and silks woven in Jacquard looms. Both represent wide scope for design. Woven pattern silks represent a field in which the technical conditions of manufacture impose very exacting requirements as to the character or at least the rendering of the design. Such silks are used for both dress goods and upholstery fabrics. When fashion makes the demand, variety and novelty are called for in the first class of goods in much the same way as in printed silks. In the second class change in patterns is much more gradual.

In the development of designs for the Jacquard loom, a first design is generally made, showing simply the color and pattern. This is then translated into a working design on squared paper, which goes to the card cutter. In some cases the first design is made by the designer on the office staff and the second design is made at the mill. In other cases both designs are made by the same person. For the making of the first design no large amount of technical knowledge is necessary, although some understanding of the requirements of Jacquard weaving is very desirable. For the making of Jacquard working designs, however, knowledge of the processes of production is a prime necessity.

In some cases, where the amount of Jacquard work is quite small, only a design in water-color is made, which is sent directly to the card cutter at the mill who himself makes the necessary translations and cuts the cards.

Of late years, with the large development of silk printing and the use of printed silks for both dress goods and decorative fabrics, the relative use of brocades and other Jacquard woven silks has considerably decreased. This is a situation, however, subject to change at any time by the dictates of fashion.

**WHERE DESIGNS ARE
OBTAINED**

Of the seven establishments manufacturing Jacquard woven silks as an important element of their product, from which data were obtained, only two employ designers for this work within their own organizations. In the other cases designs are purchased from outside designers, mainly from designing studios situated either in New York City or Paterson, New Jersey.

The number of designs purchased from outside sources by different establishments, including those for ribbons and neckwear, varies from fifty to five hundred a year. The prices paid for these designs is said to range from \$10 to \$40. The average price reported by the Paterson studios is \$35. The Textile Designers' Association of Paterson have a minimum rate for dress goods, linings and ribbons of four and one-half cents a line for the finished Jacquard design.

Only two establishments report the purchase of any considerable proportion of their designs from Europe. In three cases the European designs are reported as superior in technical execution and understanding of the requirements of production to those developed in the United States. Direct purchase of designs from Europe is reported as diminishing, but it is evident that this particular field of design is still very much dependent upon the influence of Europe and, as will be noted later on, the large majority of those who are producing designs in this field have had European training.

The existence of commercial studios, also called public designers, is favored by all establishments. Under the present conditions the existence of such studios is regarded by most producing concerns as the most economical method of securing designs and one giving the advantage of selection. In most cases designs are submitted by the studios in sketch form and are carried on to Jacquard paper only after acceptance. A certain amount of direct-order work is done by the studios and, in the case of one studio, practically no other work is done.

Two of the Paterson studios report dependence upon

European samples for the large part of their motives. The other two use European examples only to a small extent and depend upon museum material, books and direct study of floral forms in nature. As a whole, it is evident that the designs made for dress goods look to Europe to a large extent for inspiration, while those intended for upholstery fabrics obtain their suggestions mainly from textile collections and printed documents.

HOW NEW DESIGNS ARE DEFINED

In each case the character and scheme of new designs is determined by a styler within the establishment, upon whom the success of the art product largely depends. In all cases the styler is reported as having been developed through experience in the business, with no art-school training.

WORK OF DESIGNERS

The number of designers represented by the two staff organizations concerned directly with woven-pattern designs number from seven to ten, according to the fluctuation of demand. With one exception noted below, these designers are engaged upon Jacquard working designs and are located at the mill.

In the case of one establishment the original design is made in the New York office, by a designer trained in commercial studios in France, and is sent to the mill where it is translated on to Jacquard paper by a design staff under the supervision of a foreman trained in the Textile School at Lyons. In the other establishments the designers are located at the mill and the same designer who makes the sketch design translates it on to the Jacquard paper. In each case all those performing important work either in the inception of the design or carrying it into Jacquard form were trained in France.

TRAINING OF DESIGNERS

The four commercial studios in Paterson that were studied are directed by men from forty-five to sixty-five years of age. One of these received his training in an art school while serving an apprenticeship

in a textile mill in England, one in an art school and a technical school in England, one in the textile school at Crefeld, Germany, and one was developed in a textile mill in the United States.

Seventeen designers are employed in the four Paterson studios, fourteen of whom were trained wholly in commercial practice in the United States and three of whom were trained in Europe. Of the latter one was developed in a design studio and two received some instruction in textile schools.

In the four New York studios making sketches for Jacquard designs there are five persons who can be counted as head designers. Of these two were trained in art schools in Europe, one in commercial practice in Europe and two in design studios in the United States.

Forty-six designers are employed in these studios, of whom eighteen were trained in art schools, twenty in design studios in the United States and eight in art schools abroad.

<p>REMUNERATION OF DESIGNERS</p>	Salaries of the foreign-trained designers range from \$2,750 to \$5,000 a year. The salaries of those trained in the United States, doing the less important work, range from \$1,800 to \$2,750.
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<p>DEMAND FOR DESIGNERS</p>	In only one case was it reported that the business of the individual establishments would be expanded if a larger supply of high-grade designers were available. On the other hand the opinion was generally expressed that the problem of finding competent designers for woven pattern silks is one that is liable to become serious in the near future.
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<p>TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES</p>	All but two of the establishment representatives state that an effective training for Jacquard design can only be obtained in a school where practical weaving is conducted or through practical experience in a textile mill. Four establishment representatives believe that a certain
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amount of time at practical work in commercial establishments would be very valuable as part of the school training but would be difficult for practical reasons. Evening instruction does not receive any particular support in the replies.

TRAINING
RECOMMENDED BY
DESIGNERS

The studio directors agree that from two to four years should be spent in a textile school where drawing and design are taught as well as technical processes. Two of these directors believe that the training in design should be specialized from the start. One believes that the textile school should teach all kinds of textile design. Another believes that the high-school should contribute a basis of artistic culture but should be succeeded by experience in a textile school and that design might well be studied in the evening.

MUSEUM
COLLECTIONS

Museums containing collections of textiles are considered of great value for the textile industry, and both originals and reproductions are emphasized as of importance. The inclusion of modern examples was favored in a number of cases.

SUMMARY

The problem presented in the matter of designers in this industry is two-fold. On the one hand are the sketch makers who need very much the same training as that required for printed silks, with the desirable addition of some understanding of the requirements of Jacquard weaving.

Those who make the Jacquard working designs face a somewhat varied set of requirements. In all cases they need to understand the processes of Jacquard weaving. The amount of artistic ability required in addition would seem to vary considerably according to the policies and practices of different establishments.

Many of the Jacquard designers are simply draftsmen who translate the sketch on to squared paper, and for these the practical training gained in the design room or at the mill will perhaps suffice. But the head of the Jacquard design

staff is often a person upon whom much responsibility rests as to selection of colors and the technical development of the design. For such persons a rich practical and artistic training are both necessary and it is to the development of these that more attention would seem essential if we expect to develop our own resources in this field.

Several textile schools in this country are well equipped with machinery and apparatus, and are in a position to give whatever instruction on the technical side is desirable to give in schools. Certain of these schools have well-developed art departments and, whatever has been the case in the past, are now prepared to give advanced instruction in textile design. Extremely few students have heretofore come out of these schools who have combined the study of design with such instruction in Jacquard weaving as is necessary to equip designers for this field. This fact is apparently partly due to past deficiencies of the schools and partly to the small remuneration offered by manufacturers to their graduates. It would seem of vital importance that the education now offered by these schools should receive serious consideration by manufacturers as a means for furnishing a supply of young persons out of which may come high-grade and well-equipped persons to head the Jacquard designing staffs.

SILK RIBBONS

In connection with printed and woven pattern silks a study was made of the conditions relating to designs for silk ribbons. The lack of variety in design presented by ribbons, the small number of designers needed to supply the demands of the industry and the fact that the problems presented are on the whole similar to those met with in broad silks, seem to make it inadvisable to present a separate report upon this branch of the silk industry.

Very few ribbon houses at present employ designers. Those that do so have generally obtained designers from abroad with technical training. Designs for printed ribbons are generally obtained from free-lance designers and those for woven patterns from design studios.

WOOL AND COTTON TAPESTRIES

<p>NATURE OF DESIGNS USED IN THE INDUSTRY</p>	<p>Furniture coverings and draperies, under ordinary household conditions, last for a number of years. Wool and cotton tapestries for these purposes must, therefore, refrain from any emphasis of temporary fashion. As a consequence, standard conventional patterns form the main reliance for such fabrics and these are drawn very largely from historic examples.</p>
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Up to the present time historic motives have proved of such sufficient suitability and beauty for these textiles as to withstand all attempts to introduce new tendencies in styles.

For the above reasons there is very little effort devoted to the creation of new motives for these fabrics and the following words of one of the leaders in the industry are suggestive, if not altogether true, in regard to the rôle design and invention play in this field. He said: "Give me a collection of historic motives, such as are contained in the South Kensington Museum, and a piece of tracing paper, and I can take any man in my establishment and make a useful designer of him in a few days."

This general attitude is typical of the design situation in the entire industry. Manufacturers possess a large collection of samples upon which they draw freely for suggestions, making changes in size and color which they find desirable. To accomplish such modifications with as good taste as possible is the aim of most design work in the industry.

Furthermore, the upholstery industry does not attempt to set styles. In this matter it follows the lead of the decorators and furniture manufacturers.

It is to the technical problems of weaving that the energies of the industry are largely directed. Study and ingenuity are concentrated on developments that will either produce a new effect or an old effect at less expense.

Tapestries are woven on large Jacquard looms in imitation of hand-woven tapestries. After the design has been trans-

ferred on to squared paper, cards for the loom are cut, the colors being run either on the warp in the case of cotton tapestries, or on the weft in the case of wool. To prepare the loom for weaving a new pattern is an expensive operation involving a cost in the development of the design and the cutting of the cards of from \$500 to \$1,000 and a period of time from six to eight weeks. About five to fifteen yards, according to fineness, is the average daily product of the loom.

The quality and price of tapestries vary according to the material, the process, fineness of weave, and the intricacy of the pattern, the average number of cards being from 800 to 6,000.

During the war, and at the time of the survey, conditions in all decorative fabric industries were particularly abnormal. The demand was much greater than the supply. Most establishments were sold out for a year ahead and efforts were devoted to increasing production with as little waste of time and money as possible. This condition was one that naturally lessened, even below the usual point, the demand for new designs. In normal times, however, keen competition for good designs goes on between the various establishments.

WHERE DESIGNS ARE OBTAINED The five establishments from which data were obtained all employ designers. In four cases no designs are purchased outside. One of the concerns purchases thirty-five per cent. of their designs in Europe and also buys about fifty designs a year from free-lance artists at prices ranging from \$25 to \$75. Three establishment representatives are of the opinion that European designs are not superior to those obtainable in the United States. One takes the opposite point of view and one states that the color combinations in European designs are superior to those made in America.

As has been indicated above, a large proportion of the motives for the designs in this industry are obtained from historic and modern textiles or documents.

HOW NEW DESIGNS ARE DEFINED

A production manager or styler defines the character and quality of the design produced. All of the stylers or production managers were developed through practical experience in the business.

WORK OF DESIGNERS

Designs are made in various ways. In some establishments there are head designers, sketch makers, and putters-on (Jacquard translators). A head designer is a well-equipped man who understands the practical side of production and superintends the development of the design from the first sketch to the production on the loom. In some cases a production manager takes the place of the head designer. The sketch maker works up the ideas of the designer or production manager. The putter-on must understand the requirements of the card cutter and must be a good draftsman, capable of exact work and able to use various colors in his drawings that will be clearly distinguishable.

In some establishments there is no strict division between those who make the sketches and the copyists or draftsmen. As a general thing a major part of the work in the design room is limited to the translation of designs to meet technical requirements, and makes few demands upon artistic ability.

In some cases the designs produced in the drafting room give merely the form and general color differentiation. These are then worked up by a production manager as to the color of threads to be actually used in the loom. A number of color schemes are often woven as try-outs. These are perhaps modified and other experiments woven before the final color scheme is decided upon.

TRAINING FOR DESIGNERS

Designers have been secured for American establishments in various ways. Employers have often sent to Europe for a designer who has had practical experience as well as art-school training; they have also secured designers from other establishments by the offer of increased salary; lastly, they have developed designers

within the establishment. A large proportion of the designers at present engaged in the tapestry industry have been developed in the latter way. A young man in any of the other departments in the establishment showing interest and aptitude for his work may be placed in the design room under the guidance of the head designer, where he at times develops into an efficient worker. The weakness of this method of training lies, of course in the limited opportunity presented for broad artistic development unless the head designer stimulates such young workers to outside study.

Thirty-two designers are employed by the five establishments studied. Eight of these were trained in Europe. These include three of the head designers. Of the latter one was trained through an art school and mill experience in Scotland, the other two in a textile school at Crefeld, Germany. Of the others trained in Europe three had art-school and studio experience and two were developed through the mill and the design studio.

Of the twenty-four trained in the United States twenty-one have been developed solely through design-room experience. A few of these have attended evening classes in design. Three had their first training in an art school.

REMUNERATION OF DESIGNERS

The salaries reported for designers range from \$1,800 to \$5,000 a year. From \$2,000 to \$3,200 would seem to be the most common figures.

DEMAND FOR DESIGNERS

It is evident from statements made that designers capable of creating artistic combinations and who understand thoroughly the requirements of

Jacquard design are difficult to obtain. Were such designers more readily available the quality of results would evidently be improved and the difficulty of securing fine color effects in the fabric much decreased. One representative states the opinion that a really well-equipped designer, possessing both strong artistic feeling and knowledge of commercial require-

ments, would unquestionably increase the business of his establishment.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

In each case the opinion was expressed that art-school instruction under our present conditions does not afford satisfactory training for entering the design room in this industry. If any special school training is to precede entrance to a design room, a textile school combining art instruction with thorough training in technical processes is favored. All representatives regard it as essential to follow any school training, however thorough, by practical apprenticeship in the design room of a producing establishment. All feel that evening classes can be of much value in providing instruction on the artistic side, provided that this instruction is specialized in the direction of tapestry design.

One representative states that the head designer should have a thorough training in textile designing, which should involve drawing, understanding of cloth structure and the work of the various looms; the sketch maker should have training in design and color and be well acquainted with historic textile patterns; the putter-on should be a good draftsman and have enough of artistic appreciation to preserve the significant elements of the sketch while translating it into a Jacquard working design. Another representative states that the textile schools in the United States are inadequate as compared with those in England, France, and Germany, and believes that the design instructor in such a school should be a thoroughly competent man with considerable experience in commercial work and should be paid a salary commensurate with commercial remuneration.

Another representative believes that designers should work in the design room during the day and study at night in the fields of drawing, color, and design.

It is noted that in one city draftsmen have formed a union. The results of this action, in the opinion of one representative, have not been beneficial, as it has resulted in

a uniform rate of pay and robbed the workers of ambition to progress.

TRAINING
RECOMMENDED BY
DESIGNERS

Four head designers are of the opinion that the best foundation training for design work for Jacquard fabrics can be obtained in a textile school giving instruction in weaving, dyeing and textile construction with related work in drawing, color, and design.

MUSEUM
COLLECTIONS

All establishment representatives regard museum collections of textiles as very important. Two state that such collections should be made up of originals where possible, and all are of the opinion that such collections should provide for the display of present-day artistic products.

One representative expresses the opinion that the Metropolitan Museum and the Museum of Natural History meet the need in Greater New York, but expresses the opinion that it would be much better if such collections could be housed under one roof. All believe that these museums should be open in the evening.

SUMMARY

It is evident that if the tapestry industry in this country is to become independent of European-trained designers it must give more attention to the training of high grade designers in the United States. With the present constitution of designing staffs in the various establishments, headed generally by broadly trained European designers, the establishment representatives are content to favor introducing young workers from the mill into the design department and relying entirely upon the training afforded there, with the possible addition of night-school instruction in color and design. Such a system of training would seem to carry no assurance of permanent high standards unless it is to be fed at the top, when necessary, with other highly equipped designers.

If superior designers, capable of dealing not only with historic patterns but with new creations, are to be trained in

this country, it would seem clear that the artistic education needed can only effectively be secured through study in a day art school, followed by mill experience, or by a textile-school training in which ample provision is made for instruction in drawing, color, historic ornament, and design and sufficient instruction in cloth structure and loom processes to develop an understanding of the technical requirements underlying Jacquard design. Of these two the latter would seem to promise more certain results.

There exist at the present time in the United States at least two textile schools amply provided with opportunities to give the necessary art training as related to textiles. While it is probably true that the tapestry industry in itself could absorb or support but few designers trained in this way, and while it is also true that only the hope of superior positions paying adequate salaries will inspire young people to undertake such training, it would seem that the several branches of the textile trades issuing in woven pattern designs could readily absorb the graduates of one or both of these schools if confidence in their abilities were developed. Larger recognition of the training opportunities presented in these schools would seem to be necessary on the part of American manufacturers if superior designers for these trades are to be developed in this country.

FIGURED PILE FABRICS

Pile fabrics differ from other fabrics in having a nap of threads, either loops or free ends, emerging above the regular cloth structure. Such fabrics, which include velvets, velours, plushes, cheniles, velveteens and corduroys, are made of various materials, among which are silk, linen, cotton, jute, sheep's wool and the wool of the Angora goat. The chief aesthetic characteristic of pile fabrics is the beauty of color obtained by the play of light through the upstanding pile and by variations of light and color where a pattern is introduced.

There are two ways of making pile fabrics. One in which two cloths are woven at the same time with a connecting pile thread, which is then cut in the loom, and another method by weaving on a so-called wire loom in which case a single cloth is produced. Another textile which might be classed as a pile is velveteen, which is woven flat and teazeled after weaving.

The various methods of producing surface patterns are as follows:

1. *Jacquard Weaving*—(a) Yarn dyed where the pattern is produced by controlling the arrangement of the pile threads by the usual Jacquard method. (b) Piece dyed where the goods are dyed after weaving. The pattern is formed during weaving by using threads of one fibre to make the figure while threads of another fibre make the background. When the cloth is dyed the two fibres take the color in a different way, thus bringing out the pattern. (c) When patterns are produced by cut and uncut pile.

2. *Roller Printing*, which produces an effect of great softness of outline on pile fabrics and a beautiful play of color. This process, however, is limited as to size of design and number of colors.

3. *Hand Block Printing*, which is used to a considerable extent for fine effects, as this process presents no limits as to size of motive and number of colors that can be used. Smaller quantities can be produced by this process than are economically profitable in roller printing.

4. *Embossing*—In embossing the roller becomes a die, and the application of heat and pressure stamps the pattern on the plain material in such a way that part of the design is raised (pile straight), and the rest pressed down (pile matted).

5. *Cutting* is a process in which part of the surface (either the background or the pattern) of plain goods is sheared down with knives or etched with acids.

The last two processes endeavor to produce the effect of Jacquard weaving without its expense and the ingenuity of the trade is largely concentrated upon perfecting new methods that will achieve such results. It should be said however that some of these new effects, especially those produced by cutting, have a quality of their own.

NATURE OF THE DEMAND FOR DESIGNS

The demand for the finer fabrics reaches the establishments largely through wholesale jobbers and customers. Motives for designs are consequently furnished by the consum-

ing industries rather than by the establishments themselves.

The designs follow the styles in furniture and interior decoration closely and are largely dependent upon historic motives.

WHERE DESIGNS ARE OBTAINED

Of the seven establishments studied three employ no designers. In the other four, a total of five designers are employed. Three concerns purchase their designs either from individuals or design studios. In other cases a limited number of designs are also so purchased. Such designs are obtained at prices ranging from \$25 to \$75. One case reports \$10 as a minimum price. These are generally sketches which have to be redrawn before going to the mill. There would seem to be but very few specialists in designs for pile fabrics.

In only two cases was it reported that designs are purchased in Europe and in these cases only about five per cent. of the consumption was so secured. Two representatives consider that European designs are superior in the matter of color combinations and one in the quality of the historic motives.

HOW NEW DESIGNS
ARE DEFINED

The problem of design as related to pile fabrics is not so much one concerned with the matter of creating new motives as with the selection of suitable historic motives and the adaptation of the same. In the manufacture of Jacquard fabrics the dependence is largely upon designs of old velvet, while for printed fabrics suggestions are often taken from tapestries, embroideries and other textiles.

In all cases except one the person who defines the motives for new patterns was developed through practical experience in the trade. In the remaining case the styler had three years' instruction in an art school.

WORK OF DESIGNERS

In some cases the sketch, that is, the design showing pattern and colors, is made by one designer and the Jacquard working design by another. In other cases the two designs are made by the same person. Much of the work of the designer is concerned with the adapting of motives taken from old velvets and other textiles to the requirements of pile fabric production.

TRAINING OF
DESIGNERS

Of the five designers employed in producing establishments one was trained in France, one in England, one in Scotland, and two in the United States.

One of the latter attended an art school for three years and the other, evening classes in the Philadelphia Textile School. The French designer was trained in the Textile School at Lyons and the Scotchman received his education in an art school in Glasgow.

REMUNERATION OF
DESIGNERS

Salaries reported range from \$1,200 a year for beginners to from \$3,000 to \$5,000 for skilled designers.

DEMAND FOR
DESIGNERS

The situation in regard to the need for designers for pile fabrics is very similar to that in other branches of the textile trades. The demand is not

for more designers but for better designers, designers of greater artistic talent than are available at the present time.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

The uniform opinion expressed is that art schools as at present constituted cannot fully equip designers for pile fabrics. They can only lay a foundation which needs to be supplemented by an extended training as to the technical requirements of production gained in commercial practice. Three believe that school instruction might be brought to the point of developing commercial designers if an effective combination of practical training and art instruction could be secured.

All feel that it is necessary for the styler or head designer to assume considerable responsibility for the training of beginners in the design room.

TRAINING
RECOMMENDED BY
DESIGNERS

The designers interviewed refer to the instruction in historic motives as being the most valuable element in the training for their work. They state that while the industry is content with the reproduction and modification of historic motives breadth of artistic training and creative imagination does not count so much as in other trades.

Efforts to obtain variety in effects and to devise new and more economical ways of obtaining such effects are according to them the principal considerations in designing for pile fabrics.

School work is recommended based on a course in design followed by one or two years of specialization in textile design accompanied by a practical course in weaving, such as might be furnished in a textile school. Furtherance of this training in commercial establishments is deemed necessary to equip the competent designer.

MUSEUM
COLLECTIONS

All representatives consider museums containing textile collections as very important in furthering the artistic possibilities of the trade, and are of

the opinion that, while such collections should contain as many originals as possible, reproductions should also be shown. All believe that such collections should contain present-day products.

Five report that the Metropolitan Museum fulfills this need to some extent. All feel that museums should be open in the evening to aid designers.

SUMMARY

Two problems are presented in the matter of design for pile fabrics as in other branches of the textile trade involving Jacquard weaving. One is the development of the sketch artist and the other the training of the Jacquard designer. These two are sometimes represented in one person, but usually the sketch is developed by one designer and the Jacquard working design by another. The problem in the pile fabric industry is one that centers largely in the sketch artist and the conditions of the case are very similar to those presented in the development of such artists in many other branches of the textile trade. Recommendations concerning this situation are presented under Provisions for Training Designers for Printed Silks, Printed Cottons and Cretonnes.

The problem of the Jacquard designer as related to the manufacturer of pile fabrics is comparatively unimportant both from the fact that Jacquard weaving constitutes but a small element in the production of such goods and because of the mechanical quality of skill required in the draftsman.

CARPETS AND RUGS

Surface patterns in carpets and rugs are obtained either by weaving with colored yarn, or by printing on the yarn before weaving. Printing is performed by rollers in which the design is etched or engraved. Woven patterns are produced on Jacquard or Axminster looms.

During the period of the survey the leading carpet and rug mills of the country were working at full capacity, and their production could hardly keep pace with the demand. With such an insistent demand, purchasers were content to accept carpets with comparative indifference to their design. In consequence, mills were largely engaged in producing the same goods that they were turning out twelve months or two years previous.

NATURE OF THE DEMAND FOR DESIGNS Designs for carpets and rugs largely follow the trend of styles in interior decoration, and suggestions are often supplied by architects and decorators. Salesmen are also depended upon to observe the demands of the market and the trend of new designs.

WHERE DESIGNS ARE OBTAINED Inspiration for new motives is today largely found in Oriental rugs. Museum collections, foreign and American textiles, books of ornament, and nature study are also noted as sources of new ideas. One designer states that designs for carpets and rugs are derived to such an extent from old rug patterns that much talent for adaptation but comparatively little creative imagination is required.

Of the five establishments studied, all employ designers in their own organizations. One hundred and eight designers are employed in these establishments and several firms report employing more in normal times. But few designs are purchased outside. Only one establishment reports the purchase of designs in Europe and that to a very small extent. Two state the opinion that these designs are often superior to those made in America.

**HOW NEW DESIGNS
ARE DEFINED**

Motives for new designs are defined either by the head of the sales department, the head designer, or by the two in conjunction.

WORK OF DESIGNERS

In designing a pattern for either a printed or a woven rug the head designer usually confers with the head of the sales department. A small sketch is then usually prepared and submitted to the head salesman. If approved, this sketch is presented to the colorist at the mill who may suggest modifications in the color scheme to meet the technical requirements of production. A full-size Jacquard working drawing is then made.

In some establishments designers are graded into originators, sketchers, and copyists or Jacquard translators, although no strict division exists between the grades, and those with talent in one group gradually pass into the next higher. In other establishments there is no division as to methods of work but a grading depending on capacity for original work. In any case, important original work is performed by only a few skilled designers. The majority of the design staffs are engaged upon copying, enlarging, or adapting motives or other work requiring little creative power.

**TRAINING OF
DESIGNERS**

Records were obtained in the case of forty-nine designers. Forty-one of these were educated in the United States and eight in Europe. One head designer was trained in a textile school at Elberfeld, Germany; two in a textile school at Glasgow; one took extensive courses in fine arts in the United States and in France; and two derived their training through practical experience in this country with evening school instruction in design. Three of the establishment representatives state that their practice has been to obtain their head designers from Europe.

Of the thirty-eight other designers trained in the United States two received instruction in a day art school, three in textile schools and thirty-three gained their education in

practical work in the mill and designing rooms. Of the last group eighteen studied design in evening schools.

Of the five others trained in Europe two received some instruction in a day art school, one attended a textile school in France, and two received their training through practical work in the mill and designing rooms and through instruction in evening schools.

In cases where beginners in the design room are recruited from the mill, they are sometimes first employed at color grinding and odd jobs, and are later given opportunities for copying from designs furnished by the head designer.

REMUNERATION OF DESIGNERS

The salaries reported range from \$1,250 to \$6,750 per year. In cases where beginners from art schools are employed, \$20 to \$25 per week is given as the remuneration.

DEMAND FOR DESIGNERS

Three firms state that in normal times the business of their individual establishments would be furthered and possibly expanded by a larger supply of higher-grade designers. One states that they are always in need of good designers.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

A balance of technical knowledge and artistic feeling is stated to be the strong point in the equipment of the best designers. The weak points that are stressed are lack of artistic culture and lack of imagination, personality and ambition. In no case is the opinion expressed that a satisfactory and effective training for beginning work in the designing department can be obtained in art schools as at present constituted.

Three of the largest establishments favor taking boys from high-schools, at sixteen or seventeen years of age, where some instruction in free-hand drawing and color has been given and placing them first in the design room for a period of apprenticeship. During this period of a year or a year and a half

they are given work in copying and simple drafting. Those who show aptitude for the work are then put into the coloring, card-cutting and weaving departments of the mill to learn the technical requirements of production processes, and are then reentered in the design room. Such beginners are encouraged to attend evening classes where they can obtain further instruction in color and design. In one establishment experts from the different departments give talks or lectures twice a year explanatory of the practical considerations that bear upon the character of the design.

All representatives emphasize the opinion that an art-school training can be effective in this field only when it is supplemented by considerable experience in a producing establishment. One representative believes that the textile school affords the best opportunity of combining technical training and artistic instruction.

In all cases the opinion is expressed that the commercial establishments must be willing to go to considerable lengths to further the training of the young beginners after they have been entered in the design department.

Evening classes are felt to be of much value in affording opportunities for instruction in color and design to young workers in the design room who have had only technical training.

TRAINING
RECOMMENDED BY
DESIGNERS

A weakness in art-school training noted by designers is lack of instruction on the technical side of weaving and dyeing. Technical instruction in the textile schools in Germany is reported as very thorough, but that too little opportunity is afforded for individual development.

Five of the designers believe that the best preparation for design work in this field is a broad art-school training of three to four years. In two cases a textile-school training is preferred where opportunities for art instruction are available. One designer feels that a training gained entirely in practical conditions is preferable to any school training.

Two designers consider that it would be desirable to have students go into commercial establishments during their summer vacations.

MUSEUM COLLECTIONS

Museums containing textile collections are felt to be very important in the judgment of all establishment representatives. The opinion is uniformly expressed that specimens used in museum collections should be in the original form wherever possible, supplemented by reproductions or photographs. Seven concerns feel that present-day artistic products should be included in such collections. Four reply that the Metropolitan Museum fulfills the need to some extent, and one mentions the Natural History Museum. All feel that such museums should be open in the evening.) —

SUMMARY

Conditions in regard to the training of designers in the carpet and rug industry are very similar to those existing in the tapestry industry and in this case it would also seem clear that if America is to develop its own superior designers, equipped with both a broad artistic and technical training, it must pay more attention to the development of such designers within its own confines.

In establishments already well provided with expert head designers developed to a large extent in Europe, the management is largely content to follow the policy of taking into the design room high-school students or others with an elementary training in color and design and relying for their further training upon the head designer and possible attendance at evening schools. Such a training is probably sufficient to equip the rank and file in the designing rooms who are never to become expert or head designers. This policy allows young workers to enter the designing rooms at an age when they are content to enter upon an apprenticeship period involving minor tasks and odd jobs and to develop a thorough acquaintance with the practical methods of the establishment concerned. For the development of skilled, expert designers, such

a training is manifestly lacking in opportunities for broad artistic culture.

For this purpose a basic school training embracing both technical instruction and training in design would seem to be very desirable. The natural opportunities available in this country for such training would appear to be, first of all, in those textile schools which afford opportunities for art training. As has been noted in preceding portions of this report, such schools have so far produced but few designers, and future possibilities in this direction depend both upon further coordination of design training and technical instruction and upon encouragement on the part of manufacturers.

If American textile schools can develop courses which achieve a practical combination of these two elements, and if young persons can be induced to undertake such courses, it is certainly to be hoped that they will receive a larger degree of support from manufacturers.

Another matter of extreme importance for the advancement of artistic standards in the carpet and rug trade is the education of retail salesmen to a greater understanding of the qualities of good design in these textiles, greater appreciation of color harmony, and in particular greater appreciation of the relation that color in floor coverings bears to the general decoration of a room. In the case of rugs and carpets, as in the case of draperies, hangings, wall papers and furniture, it is peculiarly the retail salesman who exercises a larger influence in affecting the quality of the thing sold to the customer than that coming from any other quarter. The aesthetic quality of the product that actually finds a place in the households of the country is, for this reason, dependent to a very large degree upon intelligence and artistic appreciation in these persons.

It is consequently of much importance, and in these trades perhaps of first importance, that provision should be developed in every city of considerable size to educate both the salesmen and the buyers in the elements of design, particularly in the matter of color and the relationship of the floor

covering to a general scheme of interior decoration. Numbers that would warrant a plan of organized instruction are liable to be found in every large city. In many cases existing trade organizations furnish an instrument through which instruction of this nature can be developed on some such basis as that of the Art in Trades Club of New York City.

EMBROIDERIES AND LACES

The production and use of embroideries and laces for women's costumes vary, to a considerable extent, with the changing tendencies of fashion. In some years the demand for such fabrics and decorations is very large, in others much less. In the case of laces the demand, from the nature of the fabric, is also somewhat seasonable. During the world war the American production of both embroideries and laces was greatly advanced because of the cessation of importations.

Embroideries and laces for the costume trade are mostly made on the Schiffli machine, which uses the principle of the Jacquard loom. This machine produces both embroideries and laces, the main difference being that when the background textile remains as part of the finished product the result is termed embroidery, and when the background is removed (generally by chemical means) the product is called lace. When the pattern is stitched on net the result is also termed lace. Embroideries and laces made on such machines are made in repeats.

The production of lace by the Schiffli machine is carried on in factories of considerable size both in New York City and in various parts of eastern New Jersey. A very considerable product is also made in small establishments connected with homes of the workers and housing one or two machines.

Woven laces and nets for dresses are also produced on the Lever machine, which operates on the Jacquard principle.

Embroideries are also produced on the Bonnaz machine, which stitches a design according to a pattern already perforated and stamped on the material. This machine makes only one pattern at a time and is not subject to the limitations as to size of pattern of machines producing repeats. The Bonnaz industry is as important in volume of business transacted and capital invested as the Schiffli lace industry, and deals with a large variety of work and materials. Hand embroidery for costumes is also very extensively practiced. It is reported that upwards of 700 shops, mainly owned and operated by Italians, exist in New York City.

**NATURE OF DESIGNS
USED IN
THE INDUSTRY**

The demand for new designs for laces and embroideries comes through the costume trade, and the nature and extent of this demand varies with the trend of fashion. The demand either comes directly from the costume houses as special orders, or designs and samples are made up to anticipate these demands.

American embroidery manufacturers and designers have endeavored to keep pace with the best work turned out by European establishments, but at times, owing to the lack of competent designers and insistence upon European designs, our workers have been forced to become copyists instead of originators. Manufacturers have long striven to surmount these conditions by creating designers at home.

Old laces and embroideries as well as the new Parisian styles are studied constantly for ideas. Historic and modern ornament of all kinds is also searched for suggestions.

**WHERE DESIGNS
ARE OBTAINED**

Practically all designs are made in the establishments. Very few are purchased outside from free-lance designers. Two dollars and a half is mentioned as a fair price for a design from this source, and in another case \$10 to \$20 is reported as being paid. With the exceptions of the three firms which have their own factories in Switzerland, comparatively few designs are purchased in Europe. Two firms state that, now the war is ended, they will again seek designs abroad. Ten of the establishments report that European designs are superior to those obtainable in this country. Emphasis is placed upon the artistic environment on the other side and the fact that the designer has there an acknowledged position with artistic materials of all kinds at his hand.

**HOW NEW DESIGNS
ARE OBTAINED**

The general character of new designs is defined in different establishments by a member of the firm, by a styler, by the head designer, or by a combination of these persons. The stylers are largely developed

through practical experience in the trade. In some cases they have been trained in industrial art schools in Europe.

In the embroidery industry the
WORK OF DESIGNERS sketcher develops the new designs.

In some cases the styler performs the work of the sketcher. The designs are drawn to scale and are then enlarged for the use of the embroidery machines by workers called enlargers or draftsmen. When Jacquard machines are used the enlarged drawing is used as a guide to the card cutter.

The success of the resultant work depends not only upon the designers but also upon the craft workers, especially the stitchers, who make or mar the aesthetic value of a creation according to the quality of their work.

For Bonnaz or hand embroidery the designs are first drawn on paper representing patterns of the garment to be decorated. These designs are then perforated by workers who correspond to the enlargers in the woven-lace trade. The perforated pattern is then given over to the stampers, who transfer the design to the material that is to be embroidered.

**TRAINING OF
DESIGNERS**

Of the sixteen establishments interviewed, all employ designers. Fifty-four of these designers are located in this country and twenty-three to thirty-three in the factories in Switzerland. All but thirteen of the designers employed in this country were trained in Europe. With the exception of four, all those trained abroad received their instruction in Switzerland and the large majority of these at St. Gall.

Only two important schools training embroidery and lace designers for modern processes of production are known. One of these is at St. Gall, Switzerland, and one at Plauen, Germany. In both schools the length of the course is five years, beginning with pupils fourteen or fifteen years of age. A large majority of the expert embroidery designers in this country were developed in one or the other of these two schools.

REMUNERATION OF DESIGNERS

Salaries reported by establishments vary from \$1,500 to \$7,000 a year. These relate to designers, and also to enlargers and assistants. In one establishment employing art-school students, a beginning salary of \$25 a week was reported.

DEMAND FOR DESIGNERS

Eleven of the establishments report that their business could be much expanded if a larger supply of high-grade designers were available.

Experienced designers in Europe are generally sought for when experts are needed. It is stated that neither the training needed for good technicians nor the artistic atmosphere necessary to develop designers for woven laces are available on this side, and for that reason the opportunities for Americans in this field have been limited to the more mechanical rendering of designs. This is much less true in regard to Bonnaz embroidery, where the technical processes are simpler and impose fewer restrictions upon the character of the design.

Seven of the firms are of the opinion that designers on a regular salary tend to deteriorate after a number of years. In many cases every effort is employed to stimulate the designers to further development through the purchase of books, visits to museums and stores on the company's time, and even sending them abroad. The importation of garments brought to the embroidery and lace establishments by the manufacturers to serve as models is in itself a source of education to designers.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

All establishment representatives are of the opinion that a satisfactory and effective training cannot be obtained solely through art schools. They uniformly feel that to train effectively for this industry a school must intimately combine instruction in design and in craft processes. Eight of the firms believe that students in such schools should perform commercial work for sale.

Emphasis is laid upon the importance of fertility of imagination and inventiveness and feeling for color in the make-up of the designer. A background of artistic culture and knowledge of historic ornament are emphasized as important elements to be gained through training.

One of the persons interviewed believes that the greatest promise is in a school created to meet the special requirements of the embroidery industry, financed, directed and supervised by the cooperation of the establishments interested. Another feels that opportunities for young persons trained in this country are not great in this line and that we cannot effectively supply a training equal to that provided in Switzerland.

In eleven cases it is felt that evening classes could be of service to the trade if they developed ability in drawing, imparted a greater knowledge of historic motives, and inculcated the habit of searching out new ideas.

TRAINING
RECOMMENDED BY
DESIGNERS

The designers consulted uniformly recommended a school training combining art and craft instruction. Those trained in Switzerland favor an art-school training for two years,

from fourteen to sixteen years of age, and craft and design instruction for three years, from sixteen to nineteen years of age.

MUSEUM
COLLECTIONS

Museums containing collections of embroideries and laces are considered an element of extreme importance to designers. The museum of embroideries at St. Gall is reported in many cases as an invaluable source of ideas. Original samples are considered as of the greatest value but reproductions and photographs are noted by many as extremely helpful. All believe that such a museum should provide for the display of present-day artistic products. Six state that the Metropolitan Museum has been of great assistance in this field. One mentions the Museum of the Brooklyn Institute of Arts and Sciences, and one the Museum

of Natural History. One representative stated that the war "brought textile designers to the museums and opened their eyes to the supply of design material available in America."

All believe that museum collections should be open in the evening. The statement is made that while the textile collections of the fine-arts museum serve a helpful purpose, there is a distinct need in the lace and embroidery industry for special collections made up of laces and embroideries not only hand-made but representative of the products of the modern methods of manufacture.

The head of one establishment, making and executing embroidery designs for high-grade retail and wholesale dress establishments, expresses the opinion that a museum of modes would be helpful. Here either reproductions or original models covering all periods should be on view. Every season Paris models should be brought over and exhibited during the month of September. Sketching of these models should be freely allowed. A charge of from \$40 to \$50 might be made for the privilege of making exact copies. The more typical models should be kept for the permanent collection, the others sold to the trade at the end of the exhibition period.

SUMMARY

The embroidery and lace industry is in urgent need of more expert designers and stitchers. It stands almost alone as an industry in which the large majority of skilled designers and technicians are the products of a particular type of school—in this case the highly specialized *Kunstgewerbeschulen* at St. Gall, Switzerland, and at Plauen, Germany, in which instruction in design is intimately connected with instruction in the technique of production.

The theoretical solution of the American problem would seem to be quite simple, namely, the establishment of a similar industrial art school or classes in the center of production to train both designers and technicians for this particular trade. To be effective, however, such a school training would necessarily extend through a period of four or five years, and the question presented is whether American youth can be

persuaded to submit to such an extended training during years some of which are commonly devoted to wage earning.

Such a school would be in character very similar to a textile school, and experience so far gained in this country would seem to indicate that only a very few young persons who have latent artistic talent and wish to become designers care to undertake the long technical training needed for a competent grasp of production processes.

It is possible, however, that a department in a textile school, specially devoted to the embroidery and lace industry, to which a liberal measure of support and advisory guidance is contributed by the trade, would go far in solving the problem for this country. It seems quite within practical possibilities that an embroidery and lace department, equipped with the necessary machines donated by the trade, could be developed in the Textile High School now maintained by the Board of Education of New York City, upon petition to the city authorities by representatives of the industry. At present pupils who have had two years of high-school work are admitted to this school. Admission to the embroidery and lace department could perhaps be made contingent upon high-school work in which instruction has been had in the subjects of drawing, color and design. If scholarships offered by the trade could be made available for the assistance of promising students, it is possible that provisions could be developed in this way that would go far to aid the situation in the embroidery and lace industry.

Note: The above plan was thoroughly approved by the trade committee on laces and embroideries in conference with a number of other trade representatives as one promising practical results in developing designers. The conference, however, was unanimous in feeling that such a plan would be of little value under conditions at present obtaining in the trade until an effective design-registration or copyright law is passed by Congress, that will prevent copying of designs by the smaller manufacturers.

WOOLENS

NATURE OF THE
DEMAND
FOR DESIGNS

In the woolen industry in this country designers in the usual sense play but a minor rôle in the production of goods. This is due to the fact that woolens go mainly into street clothes for men and women in which surface pattern plays but a small part and in which the appeal to the eye is gained chiefly by weave texture and solid colors. Plaids and sport skirts for women demand more color and emphasis in pattern, but with this exception American woolen goods present comparatively little scope for surface design.

They do present, however, unlimited opportunities for fabric design, an art requiring fully as much skill and taste as that dealing with surface patterns. The creation of such designs, however, is almost universally in the hands of a styler or mill manager, and the designer commonly plays only the part of translator in making the working design needed for production.

In men's suitings the demand for high-grade English woolens has operated to restrict our development in this field. This has resulted in considerable copying of English patterns and has confined American opportunities for design to the less expensive fabrics. In woolens for all types of women's clothing, however, we have reached a point in our finest products where we manufacture goods equal both in variety and beauty of weave and quality of fabric design to those made anywhere in the world.

The climate in the United States, with our hot summers, tends to limit the use of fancy or sport woolens, and the large demand for women's wear is for solid colors in which the appeal must be found in varied texture and woven effects. The part played by the cutting-up trade, which purchases and operates in large quantities, also exerts an influence in this direction, inasmuch as plaid and other fancy cloths cannot be so economically dealt with as those of plain color.

**WHERE DESIGNS
ARE OBTAINED**

Of the fourteen establishments from which information was obtained none report employing designers in the usual sense. Translators for the production of working designs are, however, always found at the mills. The element of design in woolens, as previously noted, is largely confined to the production of surface texture effects through new weaves in piece-dyed goods and mixed color effects in yarn-dyed goods. These are commonly produced by the cooperation of a styler and a highly trained technical expert or designer at the mill who thoroughly understands the many varieties of cloth structure and methods of producing the same.

Commercial studios and free-lance designers seem to play no part in designs for the woolen industry.

None of the establishments purchase designs directly in Europe, but eleven firms utilize foreign samples for new ideas and modify these patterns to meet the demands of the American market.

**HOW NEW DESIGNS
ARE DEFINED**

A styler usually exists in the large establishments. He is sometimes found at the mill, but generally in the city office.

Although the quality of the fabric depends very largely upon the judgment and taste of the styler, it is evident that the success of new weaves depends to an extent upon the ability of the mill expert to carry out effectively the ideas or indications of the styler.

In twelve cases the styler was developed through practical experience gained in the trade. In one case he was found to be a graduate of the Philadelphia Textile School and spoke very highly of the training obtained.

**TRAINING OF
DESIGNERS**

Cloth designers were found to have been trained either in the industry or in textile schools. In the majority of cases the mill designers had been trained in England, Scotland or Germany.

The fabric designer must possess a thorough knowledge of cloth structure and the nature of the various weaves, historic and modern. He should understand modern weaving machinery and methods of production. On the artistic side it is desirable that he possess a feeling for texture effects in woolen fabrics and a sense of color.

REMUNERATION OF DESIGNERS

Salaries reported for head designers or cloth experts range from \$5,000 per year upward.

DEMAND FOR DESIGNERS

The need for at least one high-grade cloth designer in each establishment is uniformly emphasized.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

Very often little is demanded of the designer at the mill except expert technical knowledge. In only four instances was any weight given to possession of artistic training, color sense, or imagination in the designer at the mill.

In a large number of cases a textile-school education is indicated as affording the best training for designers or experts in this field. Up to the present time the character of designs for woolens has offered little inducement to students in such schools to devote time to the study of design and color. The demands being made today by some of the more important houses producing women's suitings, however, would seem to indicate the value of such study.

Six of the establishments state that evening classes, if located where available, would be of value in contributing some artistic appreciation to mill designers having only a technical training.

MUSEUM COLLECTIONS

Five establishments state that museums, containing textile collections have a value for the industry. Other answers indicate that such collections

are considered of little significance for the woolen trade. Establishments that emphasize the value of museum collections indicate their belief that both original examples and reproductions would be of value.

Little interest is indicated in the inclusion of present-day productions in such collections.

SUMMARY

Woolens represent an industry in which the artistic quality is at present almost wholly dependent on a styler or manager who develops the fabric design. The office of the designer, so called, is almost entirely confined to the translation of the styler's indications into working designs for the loom. Taking into account, however, the increasing demand for finer quality of goods, the situation would seem to indicate a growing need for designers not only thoroughly trained on the practical side, but better equipped artistically. The broadest training for such men is to be found in well-equipped textile schools where the practical training can be supplemented with instruction in design and color looking to the special requirements of woolen fabrics. Out of such a specific training, supplemented with practical experience, it may be reasonably expected that individuals gifted with special artistic training will appear to supply the needs of the establishments producing the finer grades of woolen goods.

FINE JEWELRY .

NATURE OF THE DEMAND FOR DESIGNS It should be noted that the largest value of jewelry is often represented by mounted gems, in which case the element of design is limited to settings and additions that will most effectively display and set forth the stones.

The demand for new designs is to a large extent the result of trade competition for novelty. This demand is felt in different ways. In the exclusive establishments it is experienced as a need for meeting the taste of fastidious customers and to meet this demand every channel is searched to develop new and attractive motives. In the less exclusive concerns the demand is usually brought to the establishments through the firm's salesmen, who as far as possible reflect the mood of the buying public. Customers and jobbers also furnish valuable information as to what is desired in the particular markets they supply.

WHERE DESIGNS ARE OBTAINED Fourteen establishments making designs for platinum jewel mountings and seven specializing in the making of gold jewel mountings, as well as thirteen firms making fine gold jewelry, were studied.

All of the establishments excepting two making platinum jewel mountings and four making gold jewelry employ designers. In the case of the platinum concerns it was reported that thirteen executives, eighteen designers, two shop superintendents, one office manager, and two office assistants devote all or part of their time to the creation of new designs for jewelry. Those making gold mountings reported that nine executives, nine designers, three shop superintendents, two salesmen, and two craftsmen devote all or part of their time to this problem. In the case of fine gold jewelry ten executives, five designers, six designer-craftsmen, four shop superintendents, one assistant shop superintendent, and seven craftsmen take part in this work.

In platinum jewel mountings six firms depend entirely upon their own designers and seven purchase designs from outside sources in this country. The number of designs ranges from a few in the case of several firms to about seventy-five per cent. of its output with one establishment. All of these representatives state that it is invariably necessary to modify these designs before they can be used. The prices paid range from \$1 to \$5 and, in the case of special designs involving much work, as high as \$50.

In gold jewel mountings no purchases of designs from outside sources are reported, although one representative states that examples of jewelry are imported for suggestions.

In fine gold jewelry two firms employing no designers purchase all of their designs from outside sources. In two other firms one of the executives acts as designer. One of these firms buys a few designs from outside designers; in the other all designs are developed in the establishment. Of the remaining eight firms five depend entirely upon their own designers for the production of new designs and three purchase a portion of their designs from free-lance designers at prices ranging from \$1 to \$5. Two of these firms state that they buy the tools to make up the designs, paying from \$50 to \$150 per set. The designs generally require modification before they can be used.

Twenty-one establishment representatives consider free-lance designers of value to the industry, especially in the case of the small manufacturer. Seven representatives believe that the existence of free-lance designers is neither desirable nor valuable under the present conditions of marketing designs. They state that practices which develop under this system both on the part of manufacturers and designers lead to a condition of mutual distrust.

In the case of platinum jewelry ten firms report that they purchase designs and plates from Europe. The number purchased by the firms buying for reproduction purposes ranges from a few to twenty-five per cent. in the case of one firm's output. Four of the firms do not use these designs strictly

for reproduction purposes but merely as suggestive material. Six of the representatives do not consider European designs superior to those obtainable in the United States and six think that they are more artistic but often impractical, and one states that they are often not so good but that they are popular. In the words of one representative—"As designs they are more artistic but many of them are not practical. A design must have stability, utility and beauty. The French designer considers beauty to be the first requisite in a piece of jewelry and often impairs its usefulness through lack of consideration of both stability and utility."

In gold jewel mountings no designs are purchased in Europe but two of the representatives state that they buy books, plates and artistic publications in Europe for their cultural value and for suggestions.

In the case of the firms specializing in fine gold, two report that they buy books and plates in Europe which might be of assistance to their designers. Two others purchase designs in Europe, mainly for the suggestions they offer. Only one representative considers European designs superior to those produced in the United States, stating that they have a certain style which is lacking in designs made here. Another representative states that French designs are more artistic but that they are not practical for the American market.

In the establishments catering to exclusive customers every effort is made to make the designs original and of the highest order of excellence. In those dealing with the more general trade, the same effort is made but freedom of design is here restricted by certain limitations of machine production. In popular-priced jewelry the quality of design is necessarily affected materially by price limits and the requirements of quantity production.

HOW NEW DESIGNS ARE DEFINED

In a majority of the establishments the executive defines the general character of the designs to be developed and makes suggestions to the designer who carries out his instructions. In other cases the charac-

ter of the design is decided upon by conferences between the executive, the designer, the sales manager, sometimes including the shop foreman. Responsibility for new designs is thus often shared by a number of persons.

In the majority of cases it is reported that the success of new designs depends entirely upon the executive who evolves the motives. In a few cases it is stated that this depends upon the ability of the designer to carry out the executive's instructions. One executive states: "The designer is apt to be influenced by his artistic temperament to such an extent that he forgets all restrictions. We must produce goods taking into consideration price limits, size and shape, and we must work under fundamental and arbitrary manufacturing and sales restrictions, all of which tend to limit creative effort."

Inspiration for new designs is gained from historic motives, from prevailing fashions, from the stones which are to be mounted, from European designs, plates and magazines, from books, museum collections and artistic material of all kinds, from high-grade jewelry, and from reports of salesmen.

Seven of the executives responsible for the designs in these branches of the industry were trained in art schools. Three of these received instruction in the United States and three in Europe, while one who performs all of the designing for his firm, studied in evening art classes in this country and then went to Paris where he studied in the École des Beaux-Arts for two years, after which he was employed as head designer for several years in a large establishment.

The returns show that seventy per cent. of the persons responsible for the character of the design motives used have had no art-school training and of the executives involved seventy-six per cent. have had only practical experience in the trade.

WORK OF DESIGNERS

In developing the designs for jewel mountings in either gold or platinum usually the first consideration is the number and placing of the stones.

Next, the period to be used is decided upon, also the size and general shape of the article. With the indications of the form

desired the designer develops a series of rough sketches and finally a finished design on cardboard or celluloid. It is frequently necessary to modify the design slightly to meet such requirements as price limits or technical processes.

The procedure is very similar in the case of design for gold jewelry. In this case the designer is limited more by popular taste and also to some extent by the requirements of machine production. After the designs are developed, tools are made for cutting in quantities.

A large proportion of the designers state that much of what they consider to be their best creative work from the standpoint of design and which they insist involves no unusual technical difficulties, is not made up because the establishments will not accept designs that depart, in any marked degree, from what their competitors are producing.

In addition to the executive and head designer in some establishments the finished design is submitted for the approval of the shop superintendent and sales manager, each representing a different point of view of the industry, before it is made up. In the case of special orders a sketch is usually submitted to the customer for approval. In some instances samples are made up and shown to the trade before they are produced in quantity.

TRAINING OF DESIGNERS

Information was obtained in regard to the training of twenty-one persons who create designs in the service of twelve establishments producing platinum jewel mountings. Of these fourteen were trained in the United States and seven in Europe. Of those trained in the United States four were trained in day art schools and ten in commercial practice. Of those trained in commercial practice two attended courses in evening art schools and two had private instruction. All of the designers trained in Europe were trained in art schools, some of the schools being: École des Arts Décoratifs, École des Beaux-Arts and École Boulle, in Paris; the Industrial Art School in Budapest, and the Industrial Art School in Pforzheim, Germany.

In the case of the nine designers employed in the seven establishments producing gold jewel mountings, five were trained in the United States, one in Canada, and three in Europe. The designers trained in the United States were developed mainly in commercial practice, two of whom supplemented this training by attendance in evening art schools. The three designers trained in Europe were trained in art schools.

In the case of five designers, one head designer who is also shop superintendent, and six designer-craftsmen employed in establishments making fine gold jewelry, ten were trained in the United States and two in Europe. Of those trained in the United States three attended day art schools and seven were developed through practical experience in the industry. Of the latter, two attended evening art schools.

Both of the designers trained in Europe studied in the art schools. One studied first in evening art school and then under private teachers in Christiania, Norway, received a stipend from the Norwegian government for proficiency as a student, studied in Berlin under private teachers and at the Handwerkerschule and later had private instruction under graduates of the Kunstgewerbeschule at Vienna. The other designer studied in industrial art schools in Berlin and in Nuremberg and in the New Industrial School at Solingen, Germany.

The designers trained in Europe almost uniformly state that the courses were taught by excellent instructors and that the training was adequate and thorough. Criticisms made by the students trained in art schools in the United States are that the instructors were often incompetent and received inadequate salaries, that they were required to teach too many subjects and that too many students were assigned to one instructor, also that too little attention was paid to the technical requirements of production.

It is stated by twenty-four establishment representatives that the work of the average designer employed at a regular salary tends to deteriorate after a number of years, while seven take the opposite view, stating that this depends upon the individual and the conditions under which he works. "A

too commercial attitude on the part of the employer makes it impossible for any designer to grow." Several employers state that no designer thrown entirely upon his own resources and tied down to a mechanical routine, can be expected to grow.

Another representative who feels that this depends upon the designer states: "A lack of good fundamental training in the history of art and historic ornament coupled with a disinclination toward further study is responsible for most of the failures."

Thirteen establishment representatives state that as a rule the designer does not pick up readily the technical requirements underlying designs, while seventeen others state that this is not the case if the designers are given proper training and encouragement in the establishment.

It is reported by fourteen establishment representatives that the application of shop discipline, scale of hours, etc., is liable to cause dissatisfaction among the good designers. Nine report that this is not the case in their establishments. Thirteen representatives report that the design departments are provided with separate quarters from the shop force. Six report that designers are not held to strict observance of shop discipline or office hours.

Among the practices reported by establishment representatives to encourage designers to greater effort in their work are the following: six firms making platinum jewel mountings send their designers to Europe. One firm making gold jewel mountings follows the same practice. Six firms provide books and plates for reference. Ten give their designers opportunities to visit museums and exhibitions of paintings, sculpture, and decorative arts as well as retail stores to study design in other products such as textiles, costumes, etc. One representative reports that recognition of efficient work is given by increasing the salary or a stock interest in the firm.

In spite of the liberal attitude noted above in the case of many establishments and the number of individual designers reporting the utmost consideration on the part of employers,

the interviews would seem to indicate that much contrast exists between different employers in this matter and that in a number of cases little or no recognition is given to the designer's need for stimulus and inspiration outside of his office routine.

Seventeen representatives report that they employ graduates from art schools in their establishments. It is stated, however, that it is often necessary to correct much of the training that the students have received, and that the firm must expend considerable time in instructing and coaching them before they become productive. Such beginners are paid about \$15 per week.

REMUNERATION OF DESIGNERS

The salaries of designers are reported to range from \$40 to \$200 a week in establishments specializing in platinum and gold jewel mountings. The average salary is said to be about \$80 a week. In the case of gold jewelry the salaries reported are \$35 to \$125 per week, the average being about \$40 a week. There would seem to be no general scheme of salary progression in the majority of these establishments. In the case of platinum jewel mountings three of the firms report that the designer's salary is raised semiannually until a maximum is reached, and one representative states that if the designer's work results in an expansion of the business he is paid, in addition to his salary, a certain percentage of the increased return.

DEMAND FOR DESIGNERS

Seventeen representatives in these three branches of the industry report that they believe that the business of their respective firms would be expanded if a larger supply of skilled designers were available.

At present when new designers are needed by a firm they are secured through recommendations or acquaintances, by advertising, through art schools, or from Europe. Five representatives state that young boys employed in the establishments who ask for the opportunity or show an inclination to design are given instruction by the firm and developed into

designers. The majority of the representatives feel that these methods are not satisfactory. They are often able to secure designers with talent, but the necessary fundamental training is usually lacking so that it has frequently become necessary to turn to Europe for trained designers.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

Eight of the establishment representatives express the conviction that present art schools in this country cannot produce designers that are satisfactory for this industry but that training under commercial conditions is essential. On the other hand, twenty-four representatives believe that the necessary training could be acquired in industrial art schools if the commercial requirements of jewelry designing were taken into consideration. One of these representatives states, however, that he believes that the student would benefit by having a year of shop work before entering school. One believes that the American boy as a potential designer or craftsman is superior to either the German or French boy but that he has been hampered and discouraged by a lack of competent instructors until there are but few men from our own schools who have made their mark in the industry. Another feels that the ideal condition would be found in a combination of school and practical training, i. e., that the student should devote one half day to school training and should spend one half day in the shop.

It is stated that the average designer employed in the establishments studied is a fairly good draftsman, that he often possesses good taste and some degree of inventiveness and oftentimes a pretty thorough knowledge of historic ornament but that he lacks fertility of imagination, knowledge of processes and materials of production, and breadth of culture. The personal qualities most needed in the designer are said to be creative imagination, inventiveness, sensitiveness to new ideas and accuracy.

A background of artistic culture, knowledge of historic ornament, facility in drawing and rendering, including model-

ing, and understanding of technical requirements are mentioned as the equipment which should be developed through training. One representative emphasizes the conviction that industrial art schools, which provide coordinated instruction in the artistic and mechanical fundamentals of the craft are absolutely necessary if the jewelry industry is to prosper and reach a healthy condition.

Another representative states that if the school is to have any permanent value only the most competent instructors in their special fields should be engaged and that they should receive such salaries as will enable them to live without the necessity of doing outside work for the trade.

Twenty-six representatives recommend that craft work, dealing with the elementary processes of production and decoration be a feature in the school training, whereas seven feel that craft work should not be taught, one stating that it would be detrimental in that the technical knowledge acquired would hinder a free expression of ideas.

Opinion is divided as to whether students should perform commercial work for sale while in school, ten being in favor and twenty-one opposed. Those in favor believe that it would be desirable because it would tend to bring the student in contact with trade requirements, would help him to realize that his work has actual money value, and would also tend to show whether the student is adapted to the industry. Those opposed believe that the school should not be conducted as a business enterprise, as it would then fail to fulfill its function as a school. A number feel that the student should concentrate upon his studies in school and that if encouragement were necessary it should be provided in the form of prizes or scholarships.

It is felt by all of the representatives that the employer must assume responsibility for the further development of the designer after he is admitted to the establishment. One representative states: "It is imperative that the employer assume the full responsibility for the designer's further development. Art schools can lay the foundation, but as each

establishment has its own individual design and technical problems to meet, the employer must give the required assistance."

With but few exceptions it is felt that designers at present employed would benefit by attendance at evening art classes provided such classes are in charge of competent instructors. The feeling is generally expressed that evening classes now in existence do not offer instruction that is valuable to the young designer. One representative, however, considers instruction in evening classes so important that he states that he would not be interested in employing an apprentice who did not attend an evening class, that the jewelry trade will get nowhere unless apprentices are compelled to take instruction somewhere outside the shop and will stick to their positions until they learn. Another states that the employer must be responsible for the creation of a desire upon the part of his employees to take advantage of such classes. Still another representative expresses himself on this point as follows: "Instruction in evening classes is of great value. Many of the boys of the laboring classes are excellent and ready material for designers and are not able to take several years' work in the day schools for financial reasons. Evening classes should be provided for such boys and the courses so planned that they will meet the needs of the different branches of the industry. Special technical training, e. g., engraving or chasing, should not be given until the student has finished the entire course in decorative design."

Those who are not in favor of evening instruction state that the men in their establishments have reached a stage where they would find little of value in evening classes unless something of more than ordinary character were offered and that the designer needs rest and relaxation in the evening.

TRAINING
RECOMMENDED BY
DESIGNERS

Ten designers who design for platinum, three for gold jewel mountings, and four for fine gold jewelry made recommendations regarding the training of designers for this industry.

The foreign-trained designers, as a body, feel that our schools give but a superficial training and there is a lack of close co-operation between the trade and the art schools. A marked difference was exhibited between the American and the foreign-trained designer. An apparent lack of confidence was often shown in the interviews on the part of designers trained in this country when compared with the foreign-trained designer who feels that he has had a substantial art education.

The designers are practically a unit in their statement that the most economical and effective training for their work can be had through a general course in the decorative or applied arts. Opinions give from two to four or five years as the desirable length of course, one stating that if the instruction were received in a day school it would require from two to three years, or five years if obtained in an evening school. One designer seems to favor the evening school as a means of instruction but emphasizes the importance of having competent instructors.

It is felt that emphasis should be placed upon work in free-hand drawing from casts, life and nature; modeling; the study of color; the principles of design; period ornament; history of art; and the elements of geometry. Two designers believe that the principles of dynamic symmetry should be included.

Thirteen express the belief that general art training should precede specialized work in design. A majority of these believe that special work should not be undertaken until the student has had at least one or two years of general art training.

Thirteen designers believe that craft work is of great importance, especially work in enameling, chasing, engraving and repoussé. One feels that this work should be undertaken during the last six or nine months of the course. Designers trained abroad and who have had shop work in their schools state their conviction that such work has been of much value to them.

In answer to the question as to whether it is considered desirable to have design students in art schools work upon

designs for the market during their training, opinion was found to be almost equally divided. Those favoring such a scheme believe that the student will thereby obtain an idea of trade requirements.

Those opposed believe that the course of study should be based on actual trade requirements and that the period of school training should be fully occupied by study. Three recommend that money prizes or medals be given by individual firms or jewelers' associations in order to stimulate the student and encourage him to do practical and artistic work.

Answers to the question, "What do you do to insure growth and renewed capacity for your work in design?" show that the designers most often resort to books and then to museums. A number of designers make special efforts to take advantage of artistic exhibitions and study designs in other industries. Others visit the theatre or make a special study of fashions.

A number of designers expressed the feeling that they are isolated outside of business hours, that they do not come in contact with others who have an understanding of their work and that when perplexing problems arise and they desire advice or the opportunity to meet others who could offer encouragement, they find that they have only themselves to depend upon.

MUSEUM COLLECTIONS

Twenty-six representatives express the conviction that museum collections of source material are of great importance in the development of designs and designers in this field. It is felt that it is not essential that all specimens in such collection be originals but that reproductions and photographs would also be helpful. With four exceptions the representatives express the belief that present-day artistic products should be displayed, one stating that a museum or department in a museum similar to the Musée des Arts Décoratifs and a salon such as the Exposition des Beaux-Arts in Paris would be of value, and another expresses the opinion that such a display would help educate the public and the retailer.

Representatives uniformly feel that none of our present museums fulfill the need that exists in the industry, although several state that the Metropolitan Museum of Art is very helpful. All feel that collections should be open in the evening.

EDUCATION
OF PUBLIC TASTE

In the survey of the jewelry industry a special study was made as to possible ways of educating the public to a finer appreciation of artistic design in this field. The feeling in the trade is unanimous that the present state of public taste is a great handicap to the development of finer quality in jewelry design. A large majority of representatives feel that this education must be effected, to a considerable extent, through the retailer. The education of the retailer, on the other hand, they feel, can best be achieved through the manufacturer's salesmen.

The following answer given is endorsed by many: "No campaign to educate the retailer and his staff to a higher appreciation of jewelry as an art will meet with success unless it is conducted, at least in part, through the salesmen sent out by the manufacturer. Salesmen in the jewelry industry have, as a class, little knowledge of the artistic value of the product they sell, and the first step should be the education of these men. Lecture courses covering the fundamental principles of the decorative arts, with special reference to our industry, given in museums, schools, libraries and establishments, would prove to be of great value and the intimate point of contact between the salesman and the retailer would result in such knowledge being passed on, not only to the retail trade, but also through it to the general public." Those supporting the belief that properly trained salesmen can aid in solving this problem give the following reasons: first, the salesmen furnish a well-established means of communication between the manufacturers and the retail trade; second, they furnish the personal contact which is believed to be necessary if any large results are to be obtained; third, in selecting his stock the retailer depends, in a large measure, upon the judgment of

those salesmen in whom he places confidence; fourth, the salesmen can be made a power in influencing public demands, for the average retailer, in his dealings with the public, simply repeats the most convincing arguments advanced by the salesmen; fifth, that such a course would follow the line of least resistance.

A number believe that artistic and intelligent advertising would be helpful but are of the opinion that much of the advertising used at the present time is cheap and ineffective. They believe that in developing any general educational plan of this kind the industry should consult experts in advertising.

The trade magazines in the industry are severely criticized by a large majority of those interviewed. The following comments made illustrate the general opinion: "Such trade organs as we have at present are of little value and an entire change of policy on their part is imperative if they are to aid in developing a higher artistic standard in the industry. Too much emphasis is placed upon the petty details of the trade that are, at best, of but local interest and inspiration, and a broad and forward-looking attitude is made conspicuous by its absence. Trade magazines noted in other industries are far superior to those offered the jeweler."

"The trade journals of the industry are open to criticism. They confine themselves largely to 'town gossip' and unimportant commercial and financial details and there is much criticism in the trade over their lack of artistic make-up and progressive ideas. It is generally felt that they do not compare in value with the trade papers current in other industries."

Well written articles in art magazines not directly identified with the jewelry trade are advocated as an effective method of reaching an influential section of the reading public.

One other method to reach the public advocated by many is through exhibitions of jewelry. In answer to the question: "Would you be willing to cooperate in developing annual exhibitions of jewelry?" over eighty per cent. of those interviewed answer "Yes."

SUMMARY

More than any other product studied by the Survey, jewelry may be considered as an article of luxury. It is also an article of personal adornment. For these reasons it would seem that jewelry above all other types of applied art should find its proper expression only in examples of fine artistic quality. That this is not true to a large degree at the present time is apparent.

The present unsatisfactory condition is evidenced first of all by the great extent to which the trade is committed to the practice of copying rather than of originating new designs. Among the few concerns making the highest grade and most expensive jewelry every effort is made to produce designs of individual and superior quality, but below this point the practice of copying and adapting and not creating becomes more and more the rule. This hesitation in putting forth original material seems to be largely due either to timidity as to the market success of new designs or to lack of confidence in the artistic capability of present designers. It is probably due in part to the natural caution of the executive with a business training and also to some extent to the fact that these executives have, in most cases, had no art training themselves.

Other considerations undoubtedly affect the situation. Women, as has been stressed in the foreword of this report, have developed a high order of discrimination as to the appropriate and becoming in the matter of dress, but it would seem safe to say that their appreciation of the aesthetic is far less in the matter of jewelry. The reasons are not far to seek. The expense and permanent character of jewelry forbids frequent changes and consequent adaptation to different costumes. At the same time the aesthetic effects of jewelry are more delicate and subtle than is the case in dress.

Another element in the situation is the fact that the American woman purchases jewelry very largely on the basis of the intrinsic value of the gems involved. She gives very little study to the possibilities of color and form in jewelry as

related to appearance and dress. One example that may be cited is the case of semi-precious stones. The decorative color values of such stones are not generally appreciated and at the present time are mainly used in craft jewelry which is often poorly made.

Whatever the difficulties may be in developing a plan for the better training of craftsmen and designers, the needs of the situation would seem fully to warrant serious consideration of this problem by the trade.

The value to be gained from designs of greater novelty and greater beauty would seem to be more evident in the jewelry trade than in almost any other. Jewelry is not a staple, it is an article of adornment, and what is true of all art industries is peculiarly true in this case. The market is not a fixed quantity but is extensible according to the attractiveness of the product. The quality of design is, accordingly, a particularly important asset, considered from the purely business standpoint.

The development and holding of an export trade depends also to a very large extent upon the quality of design. To market jewelry successfully in other countries means, first of all, that the quality of design must be adapted to the taste of the particular country and to the individuals in that country. This requires well-equipped designers possessing knowledge as well as taste.

The present situation in regard to the training of designer and the relation of this situation to the trade is unquestionably not satisfactory. On the one hand, there would appear to be but two schools in the country that provide, in a comprehensive way, under competent instructors, the needed specialized artistic training coupled with instruction calculated to give an understanding of the processes of production. On the other hand, opportunities of supplementing and rounding out school training under practical conditions are in general not adequate inasmuch as but few manufacturers have developed a willingness to take graduates of applied-art schools into their design rooms and afford them the sys-

tematic instruction which is needed for their full development.

The provision of adequate school training for jewelry designers represents a difficult problem. It is much the same problem as that presented in a number of other industries. The number of designers needed is not large. Only centers of jewelry production like New York City, Newark, Providence, Chicago and Cincinnati could conceivably support day-school courses in this field. It is the uniform testimony of trade representatives that no school can be at all effective in developing high-grade jewelry designers unless it is officered by thoroughly competent and experienced instructors. On the other hand, it is the very general conviction of the trade that such school courses should include sufficient instruction in craft work to give an understanding of the technical requirements of production. This means expensive equipment and somewhat expensive materials.

The question of support of such a school is, consequently, of prime importance. The Rhode Island School of Design at Providence receives assistance from the manufacturing jewelers of that locality and its jewelry courses have achieved results which have met with the warm approval of the trade. The jewelry department of the school is splendidly housed and equipped and its teaching force for the most part are experts employed in the local establishments. The school is located, however, in a district which does not produce the finest type of jewelry, but in which a large amount of inexpensive jewelry is manufactured.

The natural opportunity of the school, consequently, is to train for the production side of the industry with only incidental reference to the development of designers. Throughout all the courses, however, instruction in design has a place to the end that the potential designer may be encouraged and a feeling of beauty developed in the work of the craftsman. To this function the school is most ably addressing itself and is performing a service of utmost value to the local industry.

In New York City the conditions are very dissimilar. This

city is the merchandising center of the jewelry trade and, furthermore, produces the highest grade of jewelry. The need of the well-equipped designer is here of the first consequence.

Pratt Institute has since 1901 maintained a class in jewelry design and craft work from which a number of designers and craft workers have entered the trade. In spite of the admirable work performed by this class, there seems to be, in the opinion of the trade, a definite place and demand for some training provision in the Borough of Manhattan.

The greatest need of the industry, as expressed by many of its leaders, lies in the development of a comparatively few designers possessing both a high order of talent and sound artistic training. For the training of such designers several years of contact with the best the country can offer in the way of artistic instruction and intimate acquaintance with museum collections and other source material would seem to be essential. Breadth of artistic culture and inspiration is the first requisite in the education of such workers. On such a foundation should be provided opportunities for specialized study of jewelry design under thoroughly competent and trained instructors. Evidently a training of this kind can be made possible in effective terms only through a day course requiring several years of application.

The development of such a scheme of instruction involves a number of considerations. In the first place, it is not an easy matter for young men desiring to become jewelry designers to attend a school of this type for a number of years without wages. The numbers of high-grade individuals that can be reached through such a plan will consequently be small.

The question of direction and support is also important. Direction and support by the manufacturers would insure expert training such as is needed to meet the trade requirements; or at least training that is thought by the trade necessary to meet the practical requirements of the situation. On the other hand, there are features which develop some questions as to the wisdom of such a plan. In the first place provision for such training would entail considerable cost in the

matters of housing, equipment and maintenance. Furthermore, in the administration of such a school or course there is some danger that the practical side of the designer's training will be emphasized at the expense of cultural development. In such case the instruction is liable to issue in a narrow or limited training, not consistent with the highest equipment of the designer. It is also true that the administration of such a plan is liable to be dominated by one or two persons from the trade who may be swayed by special convictions and prejudices.

These considerations raise the question as to whether such work could not be as well or better accomplished in a school which would enter into some cooperative arrangement or contract with the jewelers of the city that would insure a sound and broad scheme of training. In such a case it might be possible that the necessary equipment could be donated by the trade as in the case of the Rhode Island School of Design. It might be possible, furthermore, that a contribution to the maintenance of such a school could be made in the form of scholarships subscribed by the trade.

Such a plan has certain evident advantages outside the question of cost. Under such a plan students could be assured sound general art training; they would be liable to benefit by the liberal influence of the other courses maintained by the institution, by contact with the other students and also, possibly, through museum collections. Such courses, if successfully and effectively developed, would also be liable to attract students from other fields of work in such an institution.

If any cooperative scheme is adopted it is of the greatest importance that the supervision and cooperation of the trade be furthered by provisions for an advisory committee from the trade that could enter into intimate relations with the work of the school.

Outside of the possibilities of such a plan is both the need and the opportunity of nurturing the latent talent already enlisted in the industry. A practical scheme that will reach the

young designers and craftsmen and afford them instruction not readily gained under commercial conditions would probably produce more immediate results and affect larger numbers than is possible through the first plan.

It would seem possible that a scheme of part-time instruction might be developed that would reach the craftsmen and young designers already in the industry provided manufacturers will grant the time requisite for such instruction without loss of wages and provided further that the employers will guarantee continuance of such workers in school for a period of years. An important advantage that inheres in a part-time plan is the fact that the participation of employers, so essential to the successful functioning of a school for training designers, is liable to be enlisted much more in such an undertaking if the students are from their own establishments rather than beginners, unconnected directly with their economic interests.

The part-time plan undoubtedly presents real difficulties to the employer, but it would also seem to present elements of such real value as to warrant serious consideration. Whether the part-time plan could best be operated on the basis of a half day attendance in the factory or designing room and a half day in the school, or on a basis of perhaps three half days in the school, is a matter of question. Whether all apprentices in the shop and all beginners in the designing room between the ages of sixteen and eighteen should be sent to such a school, or whether only selected employees showing talent should have the advantage of such an opportunity are also open questions.

As a result of these considerations the following recommendations are made with reference to the situation in New York City inasmuch as this situation seems to present both the greatest need and the greatest opportunity for further means of training jewelry designers:

(1) That a graduate class in jewelry design officered by thoroughly competent and talented instructors be developed in some existing institution in New York City through co-

operation between the institution and one of the trade organizations in the jewelry industry; that such a course be opened to students who have already had at least two years of training in an all-day art school; that the equipment deemed necessary to provide instruction in or illustrate productive processes be supplied by the trade organization; that the length of course in the school be two years and the number of students limited to twenty-five; that scholarships payable to the school be provided by the trade amounting to a total of at least \$5,000; that the instruction be conducted and supervised by the school administration; that there be a school committee appointed by the trade organization to cooperate with the administration of the school; that the approval of this committee be necessary as to the appointment of the instructor, the plan of instruction and method of awarding scholarships; that this committee shall observe frequently the instruction provided and the results obtained and shall make bi-monthly reports to the organization as to the progress of the work and advise as to its continuance.

In considering such a proposition it should be recognized that the successful maintenance of such a class is practicable only on condition that the industry will recognize the need for such advanced training and will stand ready to reward sufficiently in a material way the graduates of such a course. It should be noted that if a class on the above lines could be established and should gain recognized standing, it would be possible to exercise careful selection in the matter of admitting applicants, and in this way, develop a class of high-grade material.

One other provision that would seem of prime importance in this connection is the establishment on the part of the manufacturers of one or two scholarships to be awarded to the most promising graduates of such a class, which should allow travel and study abroad for the period of a year. Scholarship provision of this kind added to the scheme of instruction above outlined would go far to gain wide recognition for the plan as a whole and to insure a permanent and effective means of developing the needed talent for the industry.

(2) That the possibilities of a plan providing part-time training for young craftsmen and designers be thoroughly investigated by an appropriate trade body, such as the Jewelry Crafts Association, to the end that a plan of training which would insure continuous attendance of young workers without loss of wages for a period of several years and that would at the same time minimize the danger that such students be induced to change employers during their period of schooling be evolved. The practical possibilities for carrying out such a plan evidently depend upon united action and approval by the appropriate local association of employers.

Outside of the question of day-school instruction with its limited field, there is unquestionably a large need for evening class instruction in local centers of production. To meet the situation effectively as much care should be exercised in the selection of thoroughly competent instructors as in the case of the day schools. Criticism has been leveled at some of the evening schools as providing only commonplace instruction which does not attract the best material among the working force. Evening classes, to be successful, and to attract the right kind of material, must always be taught by men of superior ability and experience. Such classes as well as those in a day school should have the advantage of close cooperation and supervision of representatives of the trade.

One other matter that has been emphasized by a number of trade representatives perhaps needs special attention in the jewelry trade, namely, the need both for according a certain amount of freedom to the jewelry designer and for special efforts to provide for him stimulus and inspiration. It would seem to be evident that in those cases where the designers have been treated not simply as elements of the factory organization but as producing artists a valuable return has accrued to the employer. The practice in this regard would seem to be extremely varied. As noted in the findings, some establishments have reported exceedingly far-sighted provisions in this matter, including the sending of designers to Europe, opportunities for visiting the opera,

theatrical performances, exhibitions of paintings and the decorative arts, and liberal policies regarding hours and surroundings, while others deal with the designer apparently in no way differently from the other workers in the shop force. It would seem to be clear, if creative work of a high order is to be expected from designers, that opportunities for stimulus and inspiration should be afforded them and that these provisions must be regarded as legitimate and essential elements of a wise administrative policy.

The jewelry situation, furthermore, would seem to stand in particular need of further education of the public taste as regards jewelry design. Trade representatives who have given most thought to the matter seem to be particularly united in feeling that effort in this direction should take two lines: one, the education of the retailer, and one the direct education of the public. The education of the retailer, it is believed, can best be effected through the influence of the manufacturers' salesmen, and the first step, in consequence, should be an effort to educate these men. This problem would seem to be most readily approached through lecture courses dealing with period design, with special reference to costume and jewelry design. Such lectures, as has been pointed out in the study of carpets and rugs, can easily be developed if the salesmen interested in the art industries can be organized in the various producing localities. With such organizations cooperation can be readily secured with museums or art schools to present the necessary lectures at appropriate times. With the sympathetic cooperation of employers' associations such lectures could undoubtedly be illustrated with material of great value and suggestiveness.

In the matter of more direct methods to educate the public taste the development of a high-grade magazine devoted largely to presenting the artistic side of jewelry, both historic and contemporary, through illustrations and articles; advertising in popular magazines; articles in art magazines and organization of public exhibitions of jewelry, would all seem to have an important place. If a magazine of the above

character is impracticable, there is every reason to believe that a section in one of the leading art periodicals could be reserved for the interests of the jewelry trade provided the trade would guarantee to furnish subject matter and illustrations regularly to fill such a section.

MEDIUM AND LOW-GRADE JEWELRY

(Comprising 14 and 10 karat gold, gold plated,
gold filled sterling, silver and brass)

NATURE OF THE DEMAND FOR DESIGNS

Design, from the standpoint of original creation, plays a secondary rôle in low-grade jewelry. Economic production by means of the machine is the first consideration. Time, material

and quality of labor are all important considerations. Because of this dependence on machine production, establishments largely confine themselves to fixed patterns. Only about ten per cent. of their sample lines are so-called novelties. The rest are the same standard patterns that have been in use for many years.

Establishment representatives admit that the aesthetic and artistic standard of their product is very low and are greatly interested in developing and raising their market to a higher artistic level, but as long as the public demand stays what it is, they claim that there remains no other course than to supply the kind of patterns that have proven salable or to close their establishments.

WHERE DESIGNS ARE OBTAINED

Fifteen establishments making commercial jewelry, that is, 14 or 10 karat gold rings, pins, brooches, pendants, watches, bracelets, etc., and nine

firms making plated jewelry were studied.

Only three firms report that designers are employed in their establishments, that is, designers who work on paper or in wax. In one firm the superintendent, who is also a practical jeweler, develops new designs and might be called the designer; in another firm, where it is reported that no designers are employed, two of the executives do most of the designing but there are also three other persons in the establishment who devote some time to this work. In almost all of the other

firms there are practical jewelers who develop all or most of the designs produced.

One firm making plated jewelry and one making commercial jewelry buy designs from outside sources in this country, mainly for the ideas represented. It is reported that the prices of these designs range from fifty cents to \$5. They generally have to be modified to meet the requirements of production.

Five firms making commercial jewelry and four making plated ware buy designs in the form of hubs and dies. These can easily be obtained from so-called die sinking and designing establishments. These establishments are headed, usually, by a man of extensive practical experience both in regard to production requirements and selling and marketing conditions. Such persons understand the market and the character of design acceptable in that market as well as the machine processes most effective and economical to produce desired effects.

Such concerns develop the designs either as drawings or wax models from which the dies are cut. They then furnish a set of dies to the purchasing establishment, which pays anywhere from \$60 to \$300 a set and which is supposed to be the sole owner of this particular pattern. There have, however, been cases where the ownership has not been undisputed. This is one of the reasons that most of the establishments prefer to depend upon their own tool makers. Nevertheless, with but two exceptions, establishment representatives state that they consider the existence of designers outside the commercial establishments as desirable and valuable because they contribute varied suggestions for new patterns. This feeling is especially true among the establishments which use only a limited number of designs a year.

Only one firm reports that designs are purchased in Europe. With but few exceptions the opinion is expressed that European designs are not superior to those produced in this country. One states that French and German "fancy patterns" were superior before the war, another that French designs

were superior three or four years ago and another that German jewelry designs for the cheapest grade jewelry were formerly superior to those developed in this country.

How New Designs Are Defined Almost without exception the executive decides what pattern is to be followed and brings the problem to the designer, if one is employed, or to the practical jeweler who makes models either in wax or in the actual material. In the establishments which employ designers the pattern is sometimes determined in a conference between the designer and the executive.

The success of new designs is said to depend partly upon the executive and partly upon the ability of the workers to carry out his ideas.

Sources from which executives obtain ideas for new designs are noted as follows: previous successful designs which have been produced by the establishment, higher-grade jewelry, and books on ornament. A few also report that antique examples of jewelry, foreign design, fashions in dress, and artistic data in museums furnish inspiration.

In almost every case it was stated that the executives who evolve the new styles were developed through practical experience in the industry. In one firm the two executives had experience in the sales division.

The method by which new stock designs are developed is said to be as follows: In the manufacture of low-grade gold-plated watch chains, the head of the firm together with his mechanical draftsman or engineer first decide on the nature of the design. They then go over a number of patterns which seem suitable for their purpose. From those patterns selected they will concoct or crystalize a new pattern, taking parts or ideas from one product and certain parts from another. Having completed this selective process of designing, they will then set about accomplishing their main task, that is, to construct or develop machinery capable of producing the new pattern. The average time necessary to develop such machinery is anywhere from three to six months and a great

deal of work and labor are expended to reduce the number of operations to a minimum. During this period of machine development the design very often undergoes changes. If, for instance, a link can be produced more quickly or cheaply by slightly altering the bend, there is no hesitation in making the design conform to the machine requirements.

To bring out novelties in design requires, first of all, a thorough knowledge of the market. The existing model that has proven the best seller is first selected. From this, as a starting point, the effort is made to develop something different while still retaining the character that made this particular pattern successful. For this reason, sudden changes in the patterns of low-grade jewelry seldom occur, but only gradual modifications of effect.

The greater part of designing in
WORK OF DESIGNERS inexpensive jewelry is done by the so-called practical jeweler or bench worker. Such persons are practical jewelers first of all and if able to furnish the slight talent for design which is required they can usually fill the position of pattern maker or designer.

Such a jeweler sits at his bench surrounded by the stock findings (artificial stones, celluloid cameos and metal trimmings). He assembles these in different ways, seeking to make new arrangements, adds a stone here or enriches the piece with a new ornamental unit there. If the supply of patterns that can be developed with these stock findings is exhausted it becomes necessary to work out new pieces requiring new cuttings.

In case a new design is decided upon the pattern maker proceeds to make a wax model. The die cutter then considers the practicability of the pattern submitted. He may suggest certain simplifications of the patterns which do not change the character of the design materially but make the die more practical. He then proceeds to cut out of soft steel the necessary hub and die.

The average time required for this work is two weeks, varying according to the elaborateness of the design. During

the cutting process, the tool cutter may make further suggestions in regard to modifications of the design in order to make it still more practical. From the original set of dies a duplicate set is stamped out by the machine. The original set is filed for reference or for further duplication.

TRAINING OF DESIGNERS

As stated above, only three of the twenty-four firms visited employ designers. These establishments make a comparatively high-grade commercial product. All of the other firms employ either practical jewelers or tool cutters who assist in the development of new designs.

A total of eleven designers are employed in the three firms having designing staffs of their own. Three of these were trained in art schools in the United States, two in commercial practice in this country, and six were trained in the industry in Switzerland.

The majority of the practical jewelers employed in these establishments were trained in the industry either in the United States or in Europe.

Few firms have had experience with graduates from art schools. One establishment representative states that he found the process of training an art-school graduate required so much time that his firm was obliged to discontinue this practice and to hire experienced designers. Another states that they have found such students too ambitious and artistic to be contented with designing for this grade of market.

All the establishment representatives state that the average designer does not pick up readily in practice the necessary technical knowledge; one stating that only several years of apprenticeship will give the designer the needed understanding of mechanical processes; another that it requires about three years, and another that it can be acquired in one and a half to two years.

It was stated by all of the representatives who answered this question that the work of the designer in this branch of the jewelry industry, being so largely of a technical character,

does not deteriorate, but that his output improves as his mechanical skill increases. Methods employed by establishments to stimulate designers to further development are reported as follows: allowing a certain amount of freedom in order to visit museums, galleries, and retail stores; paying adequate salaries; permitting designers to travel to acquaint themselves with the products of other establishments.

REMUNERATION OF DESIGNERS

Very few answers were received regarding the salaries paid designers. Two firms report that the maximum salary paid their practical jewelers is \$90 a week. Another firm reports that \$5,000 a year is paid its designer and another that the head designer receives \$10,000 a year.

DEMAND FOR DESIGNERS

Only one firm reports that there is a demand for high-grade designers. With this exception the feeling is expressed by establishment representatives that designers of high artistic merit would be out of place in this branch of the industry. Two firms state, however, that there is a demand for highly skilled labor, that is, steel cutters and engravers.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

All of the establishment representatives feel that the art schools of today cannot satisfactorily train designers for this branch of the industry. Several state that they can lay a foundation upon which to base practical knowledge, but that this training is of little value without subsequent practical experience. One feels that the artschool could give valuable training if it were supplied with practical equipment for production, another that a trade school would be of greater value to the industry than an applied-art school.

Almost without exception representatives feel that for this branch of the industry young men would derive more benefit if they would spend a few years in an establishment

learning the practical requirements of production and later supplement this by study in an art school rather than to reverse this process. Practically all express the opinion that the most effective way to acquire the needed art training is in evening classes.

The majority of the establishment representatives state that the ability of the designer who has been trained in the industry to understand machine production is his most important asset.

All of the representatives feel that this special technical knowledge leading to an understanding of the processes of machine production and instruction in pattern making, tool cutting, the making of hubs and dies, silver stamping and modeling should be an important element in the school training if such training is to play a part in developing designers. Eight state that a knowledge of historic motives would be desirable and six that facility in drawing and rendering might be useful.

A majority of the establishment representatives believe that it would be advisable to allow students in such schools to make designs for the market. A few qualify this statement by saying that this should not be done too early in the course.

All of the representatives feel that the employer must be responsible for the further development of the young person admitted to his establishment if effective workers are to be trained.

TRAINING RECOMMENDED BY DESIGNERS

Three designers made recommendations regarding the training of designers in this field. All recommend that the student receive training in an art school under competent instructors, but one believes that this should not take place until he has had several years of practical shop experience. Three years is mentioned by two designers as the desirable length of the school course. It is felt that the following work should be given special attention: general jewelry designing, outlining, mixing of colors and shading; high-grade bench

work, and special study of designing to meet the requirements of machine production. Two believe that a course in general art should precede specialized work in design, while the third states that training in general art would be a waste of time. All believe that it would be advisable for students to make designs for the market during their training. It is also thought desirable to have students spend a certain amount of time at work with commercial establishments as part of their school training.

MUSEUM COLLECTIONS

Only two representatives replied to the questions regarding the value of museum collections. Both of these feel that museum collections of jewelry arranged historically would be an important means of developing designers. Such collections should contain original specimens as far as possible, but reproductions and photographs would be of much benefit. One representative feels that no existing museum fulfills the need in this field, the other states that the Metropolitan Museum of Art in New York City is of great service in this connection. Both believe that museums should be open in the evening.

SUMMARY

The small amount of original work in design, and the large dependence on machine requirements represented in the manufacture of low-grade jewelry would seem to indicate that provisions for day-school training of designers are hardly practicable. The first need in this field would seem to be better provision for training young men for the production side of the industry—for such positions as die and hub cutters and tool makers. For this purpose the organization of an effective apprenticeship system in the industry is sorely needed. Such a system to be made effective can apparently be developed only through cooperative agreements between all of the producing firms in any one locality that would prevent the apprentice being tempted away from his employer by another before the term of apprenticeship expires. For the further development of such craftsmen in the matter of

design, evening or part-time classes, taught by thoroughly competent instructors, understanding the requirements of this grade of jewelry, would seem to be the most practical provision. Such classes should not only deal with jewelry drawing and design but should afford instruction in the principles of design and in the study of historic ornament.

SILVERWARE

The making of silverware is one of the oldest art industries in this country. Silver made by Paul Revere and other eighteenth century craftsmen is eagerly sought after today by museums and private collectors.

Silverware, while widely used, is because of its cost largely a luxury and as such its production is among the first to feel "hard times" and the last to recover from its effects.

The silver industry comprises two types of ware—sterling and plated. The larger number of designers and skilled craftsmen are naturally required in the production of sterling. Plated ware has a basis either of soft metal or hard metal.

The shapes manufactured also influence the scope of the design department; thus firms which confine their output to "flat-ware"—spoons, knives and forks—require fewer designers than those making "hollow ware" and "small wares" or "novelties."

The products made by the silverware industry as a whole include: flatware (spoons, forks and similar articles for the table); hollow ware (tea and coffee sets and articles of similar form for table service); decorative pieces; prize and loving cups; ecclesiastical ware; candelabra and candlesticks; toilet articles; boxes for jewels, cigars and cigarettes; mesh bags and vanity cases; picture frames; silver deposited on glass and china; and numerous small objects generally known as "novelties."

According to government statistics it appears that the number of establishments making sterling and plated silverware has decreased from 234 in 1859 to 180 in 1914. The number of people employed in the industry, however, had become five times as great, 15,787 persons being employed in 1914 as contrasted with 3,843 in 1859. The capital invested had increased seventeen times, growing from \$3,250,000 to \$50,157,296; and the value of the product had increased

seven times, amounting in 1914 to \$38,270,552 of which \$16,148,587 represented the principal material and \$21,691,007 the value added by manufacture. The highest number of persons employed and the greatest value of the product was represented by the year 1904.

NATURE OF
THE DEMAND FOR
DESIGNS

The demand for new styles in sterling silver is to a large extent due to the American desire for novelty and change. Articles of silver do not quickly wear out and the demand for new designs is to a degree stimulated artificially by the manufacturer to increase business. If it were not for this demand for novelty fewer designers would be required.

Many thoughtful persons in the industry express the belief that such a practice is wrong economically and aesthetically, inasmuch as silver should be so beautiful in design and so well made that a service would be handed down from generation to generation and that more or less whimsical changes for the sake of novelty should not be necessary.

Each firm, however, naturally tries to obtain as many orders as possible. Salesmen are constantly on the lookout for "novelties" brought out by competing establishments and for projects to meet needs real or imaginary. These they speedily report to the manager and officers of their company as a basis for new designs. There follows an effort to develop an object somewhat better than that brought out by the competitor and to produce it as economically as possible by the use of existing tools and molds.

Among the higher-grade establishments new designs as a rule are developed in an effort to "freshen up" the stock and to put forth something more attractive or eye-catching than the previous product and thus to increase the sales.

Special orders naturally offer the largest opportunities for original designs and individuality of treatment.

In years gone by it was accepted policy for a firm to bring out a new design for flat tableware only about once in seven years. A few years ago this policy underwent a radical change

and it became the custom to have two or three new designs on the market each spring and autumn. Just at present the average practice seems to be the production of one new design a year.

WHERE DESIGNS
ARE OBTAINED

Designers are employed by all of the twenty-one firms surveyed. All firms reported that no designs are secured from outside sources, but that the designers within the establishments are depended upon for the development of new designs. In fact, the demand for the work of free-lance designers is so small that only two were found. Both had worked in establishments, but preferred, for personal reasons, to carry on their designing alone. One of these designed only for silverware and found that his income was about the same as when on a salary. One establishment representative states the belief that the existence of free-lance designers is valuable for the small firms which do not maintain design departments.

All of the concerns report that no designs are purchased in Europe, but a few state that examples of silverware are secured from abroad and that these furnish the chief source of inspiration. Many, however, buy books and plates from Europe showing designs in silver.

HOW NEW DESIGNS
ARE DEFINED

Silver to an extent sells itself because of the intrinsic quality of the material, but the success of a manufacturing firm depends to a considerable extent upon the quality of design displayed in its products. New patterns, to be successful, must reflect the demand of the buying public. The style or general character of new designs is often evolved, in large establishments, through a conference between the manager, or member of the firm, the head designer, and the sales manager. In this way the problem is viewed from the standpoint of the public demand, or what is thought to be that demand, from that of the expert in production and costs, and from that of the artistic possibilities presented. In the smaller factories and those which require

few designs, the manager or head salesman defines the new patterns.

The person who defines the character of new designs seldom has had any definite art training but has usually risen through the shop to be a foreman and then manager, or has developed from a salesman. His taste, on the other hand, has often been cultivated through association with persons connected with the design of silverware and similar products, and by the study of the problems of line, proportion, and decoration as applied to his own products. Only two of these persons interviewed had studied in an art school. One other had been a practicing architect before becoming a silverware designer. Another was a graduate of the Massachusetts Institute of Technology.

Whoever evolves the new forms, as far as stock patterns are concerned, to a large extent merely devises new names for old forms, adapts old shapes to new purposes, applies new decorations to old forms and old decorations to new forms. In other words, the molds and dies that are on hand are used with as little new work as possible, to produce supposedly attractive and seemingly new effects. The development of decorative details, however, largely rests with the designer and much variety and originality may be displayed by him even in the small space represented by the handle of a spoon.

Fashions for table and toilet ware are influenced by styles in interior decoration. Changes in furniture, upholstery goods and table china are carefully followed and it becomes the designer's problem to adapt the firm's products to the coming demand. As it is necessary to plan production at least a full year ahead of the market, it is requisite to sense the coming style changes well beforehand.

WORK OF DESIGNERS In the average establishment the designer must not only be able to draw well and accurately, but he should be familiar with decorative motives and should understand the nature of the shop processes. In some cases he must also be

able to model in wax, cast in plaster and prepare the working drawings for use in the shop. In two or three of the largest establishments one or two men are relied on for the original work while the rest of the designers are employed on the more routine work.

The head designer needs a generous equipment. His work should evince a fine feeling for proportion and decorative balance and an appreciation of the play of light and shade in modeled work. He should have breadth of experience and general artistic culture. He should be sensitive to influences and suggestions from many sources and be able to select those that are vital and timely and to put these into practical and beautiful form. He should be able to meet the firm's salesmen in order that they in turn can sell the goods. He should be alert to the tendencies of the times and ready to devote time to the study of books and magazines that treat of the home and its equipment.

On the other hand, the head designer must understand the technical requirements of production and keep in touch with the work as it progresses through the shop, often modifying a design as he sees an opportunity to improve the general effect or to reduce the cost. He should be able to develop team work and to secure the cooperation of his assistant designers, modelers, die cutters, silversmiths, chasers, and finishers.

When a new design is required the largest piece of a set is usually selected for experimental work. A rough pencil sketch of a coffeepot or teapot is often the beginning of an elaborate design. From such vague suggestions the designer must make a careful drawing of the form, constantly refining the proportions of the body, handle, and spout. The decoration is only slightly indicated to show its general character. If the design is to be shown to a customer it is then worked up in color; this is especially the method of the free-lance who depends upon first impressions for the sale of his design. Working drawings of the different parts are then made and blue prints are taken from them for the use of foremen and craftsmen

in the various departments. Then comes the making of wax models, plaster casts and special tools, and finally a sample piece, upon which the ornament is carefully drawn, is made in silver. This model piece is then chased or engraved by hand and studied. There are frequent conferences as the work proceeds. In fact, there are cases where the model is submitted not only to officers and salesmen, but to the more important customers as well before it is finally accepted.

It is no unusual thing to find that a designer has spent a whole year in developing a spoon that meets the approval of all concerned; but it should be remembered that when the design is approved it is to be used, with slight modifications, on as many as forty or fifty sizes of spoons, knives and forks for most of which a separate die and hub must be cut. The cost of a set of dies for elaborate designs may run as high as \$30,000 to \$40,000.

For special orders more original designs are required. These are evolved after due study of the problem, often involving consultation of reference books and other source material. Furniture and especially wood-carving frequently offer more suggestions for new motives than actual examples in silver. One designer stated that his garden was his greatest inspiration. It is noted that at times a designer gives too full play to his imagination and is likely to produce a piece which may remain unsold for years.

In smaller shops it is often necessary for the designer to do many kinds of work, including modeling, casting, die cutting, chasing and engraving. While cost, mechanical requirements and popular taste must all be considered, it still is true that the designer's talent will play an important part in the final product. "The extent to which a designer may express his desire for beauty depends wholly and entirely upon the character of designing that he is producing. A designer is not limited if he is fortunate enough to be employed by a concern that covers the whole field of silverware; in the rich and expensive products he is free to prove his artistic ability and at the same time display his appreciation of form and

his understanding of practical construction. On the other hand, the commercial requirements of construction and the various mechanical methods employed, as well as the ultimate cost, play a most important part in designing what is known as a 'commercial line.' *

Engravers are usually men with a taste for drawing who have developed special skill in their particular technique. Others of this type become die sinkers, chasers, mold makers or lay the grounds for etching. All these require skill in drawing and a feeling for beauty of line. Many of these workmen were found to have received their training in Europe and to be skilled craftsmen capable of dealing with several phases of silver production. Among these are undoubtedly many persons of taste and artistic quality. Their work in the American factory, however, has been reduced to some one specialized process and in this narrow field they are employed year in, year out, with but little opportunity to express themselves artistically.

TRAINING OF DESIGNERS

A total of 113 designers are employed by these twenty-one firms. Personal records were obtained from fifty-five of these and more or less specific information as to training was given by the establishment representatives in regard to nine other designers. Aside from the statement that they were trained mainly in the industry, no information was received in regard to the remaining designers.

Of the fifty-five designers from whom records were secured, and the nine about whom information was received—making a total of sixty-four—forty-nine were trained wholly in the United States. Of these thirteen were trained in day art schools, twenty-seven in commercial practice supplemented by attendance in evening art schools, four in commercial practice supplemented by study of drawing or modeling under private teachers, and five were trained entirely in commercial practice.

Eleven designers were trained in Europe. Of these seven attended day art schools — three in England, one in Italy,

*From Record of Designer.

one in Norway, one in Sweden and Germany, and one in Germany. Three were trained in commercial practice in England supplemented by work in evening art schools. Another was trained in Munich, having had "unusual experience both as craftsman and designer."

Four were trained both in the United States and in Europe. One, the head designer of one of the largest firms surveyed, studied in art schools and studios in the United States and in the following art schools in Europe: Die Handwerker Schule in Berlin; L'Académie Julien and École des Beaux-Arts in Paris. He has also had practical experience in silver engraving, chasing and die cutting. Another, the art director of one of our most important firms, was trained as an architect and had many years of experience in this work together with study abroad. Two others studied in art schools in Germany and in the United States.

In a few instances the designers hold other positions as well as that of designer. In one firm the designer is also the superintendent of the factory, in another he is treasurer, and in another he is the head of the firm.

The work of the silverware designer is reported by a number of representatives to improve with practice rather than to deteriorate as is stated to be the case in some other lines. This is stated to be especially true in a small factory where there is variety and where, as one representative points out, it is much easier to keep "fresh" than in a large establishment, where there is much specialization. It is not entirely clear however, whether the improvement reported consists in artistic growth or merely in increased familiarity with technical requirements and with the stock fixtures of the establishment.

In order to prevent deterioration in the work of designers the following methods are reported by various establishments: maintaining libraries and collections of silver; holding staff meetings at which artistic problems are discussed; encouraging designers to visit large retailing centers to observe the demand and sense style tendencies; encouraging beginners

in the shop to attend night classes. It is to be noted, however, that only a few cases were found where designing staffs were regarded as performing art work requiring in any degree different treatment from the shop operatives. In most cases they were treated in no way differently from the other factory hands.

Few firms have had experience with beginners from art schools. Those that have state that it is usually necessary to counteract many of the art-school influences. Most firms prefer to take men from the shops who show an interest in drawing or in one of the crafts and encourage them to go to night school. One representative states that the right kind of young person will endeavor to educate himself, and firms that recognize their responsibilities will train his ability to fit their requirements. In the shops men progress from the preparatory department to assistant in some special branch and rise through various grades. The most capable may become foremen.

The majority of both designers and craftsmen have learned their trade in the shops without systematic instruction and then drifted into their present work, shifting from one concern to another as opportunity presented itself for improvement of their position. Many have studied drawing at night in such schools as the Rhode Island School of Design in Providence, Pratt Institute in Brooklyn, Cooper Union and the Art Students' League in New York, the Pennsylvania School of Industrial Art in Philadelphia, Fawcett School of Industrial Art and the Technical High School in Newark, Maryland School of Design in Baltimore, and evening high-schools in Taunton and Bridgeport.

The majority of the head designers interviewed have been in their present positions more than ten years and some had started as apprentices at \$2 a week with the same firm with which they are still connected. A number of these men are in the neighborhood of fifty years of age. Quite a number of craftsmen and a few designers are the sons and grandsons of silver workers.

Some firms exhibit little feeling of responsibility in the matter of training either their designers or craftsmen. Certain establishments, on the other hand, maintained definite apprenticeship systems for craftsmen before the war and one firm actually started a school for its men but discontinued it as it did not meet with the approval of the local union. At the present time nearly every shop and design room is ready to take apprentices, but few boys or young men are willing to enter the silver industry, either because they do not see any great opportunities offered by the trade or they are attracted to unskilled occupations through the present high wages. Only one case was found where a boy had recently signed shop apprenticeship papers.

The old apprenticeship system held more or less before the war. Boys began at about \$3 a week and worked from three to five years with a slight increase every six months and at the end of their term received a bonus at the rate of \$1 a week for the entire period, thus giving them from \$150 to \$250 when they completed their "time." Today boys begin at about \$15 a week and are under no agreement to remain any length of time. In the mechanical departments the unions permit one apprentice to ten journeymen of each kind. It is said that out of thirty young men who think that they are interested in the silver industry either as designers or craftsmen about ten will "stick," five will "make good" and one will rise to comparative prominence.

REMUNERATION OF DESIGNERS

No general scheme of salary progression for designers was found. The average salary of a head designer as reported is about \$5,000 a year; in exceptional cases it was stated that the salary paid might be double this amount.

The salaries of assistant designers range from \$2,000 to \$4,000 a year, being usually quoted at \$40 to \$50 a week.

In the shops the foremen of the silversmiths, die cutters, or chasers receive from \$75 to \$100 a week. Silversmiths, chasers and spinners are paid from sixty to eighty-five cents

an hour, thus earning from \$30 to \$50 a week; engravers from seventy to eighty-five cents an hour, and the highest paid craftsman, the die cutters, eighty cents to \$1.10 an hour, thus earning from \$50 to \$100 a week. Boys start in the shop at fifteen to eighteen years of age and are paid from twenty to thirty cents an hour, which amounts to \$2.50 to \$3 a day, an amount equal to what they received in a week before the war.

DEMAND
FOR DESIGNERS

From the foregoing it will be seen that the silver industry requires but comparatively few designers. A firm manufacturing for its own salesrooms

has a more varied output and therefore requires proportionately more designers and more skilled craftsmen than does an establishment supplying the wholesale trade. Many more designers are also required where special order work is done than where the output is entirely "stock patterns" and "commercial lines." Several large establishments employ only one designer or even merely part of the time of a craftsman who has some ability in drawing; while a few of the smaller firms purchase their patterns from a free-lance designer or borrow a designer for a period from an affiliated organization.

The silver industry employed many more designers in the past than at present. Methods have changed of late years and elaborate drawings are no longer required to the extent that was formerly the case. The general feeling among manufacturers of both sterling and plated silverware is that the need is not for more designers but for better trained designers; they also feel that the younger men especially, lack adequate preparation.

Of a dozen recent applicants for a position as designer it was found that those who had day art-school training only were without any knowledge of the methods of production. On the other hand, many of the applicants were found to be old men whose drawings proved that they were not in touch with the life of today.

The most serious problem reported in nearly every inter-

view is the lack of skilled craftsmen.* Some firms could use fifty per cent more silversmiths, die cutters, chasers, engravers and spinners than they are able to secure. The immigration of skilled workers has stopped and practically none are being trained in this country. A few firms were uncommunicative and said that they were satisfied with the supply and quality of both designers and craftsmen.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

Many establishment representatives report that art schools as they exist at present in this country are not satisfactory vehicles for training silver designers. The faults mentioned most frequently are that in the majority of

cases the instructors are not practical men who have been successful designers in the lines that they teach; that sufficient attention is not paid to developing a knowledge of production requirements, and that students are not aided to select the branch of art for which they are best fitted. The point is emphasized that students should be made to realize that designing is a serious business and that art is not the "easy job" that most of them imagine it to be.

It is also charged that the art schools give the student an exaggerated view of his importance and that he is unwilling to do the requisite detail work. The point is made that after three or four years' study in an art school a young designer is really only just ready to begin his practical training and should be willing to accept a moderate salary for two or three years, entering the factory as assistant in the design department, with the understanding that part of his time is to be spent in the shops and even at the bench. After that he will command a much higher salary than the man who has never been outside the shop, although at one period the shop-trained man may be receiving the greater income.

Some representatives, on the other hand, feel that the best results are obtained by the young beginner starting in the

*This was reported in a period of prosperity.

shop and then, if a desire is displayed on his part to become a designer, attending an art school for a period of two years.

A few heads of departments advocate part time in shop and part time in school after two years in art school. Thus the mornings might be spent in the employer's shop and design room while the afternoons are devoted to the study of ornamental design, including the architectural styles, period, furniture, metal, pottery, and glass.

If craft work is taught by practical men it is felt by some of the establishment representatives that it would be helpful, while others question the value of including it in the course of a serious art school because of the inability of most art schools to furnish adequate equipment. It is not considered advisable for students to make designs for the market while in school because they would hardly be up to trade standards and would undoubtedly be sold at a price below that of the trade.

Drawing from life is considered valuable training for eye and hand; modeling is looked upon as essential and principles of design and period decoration are emphasized as important.

One representative states: "A system whereby the employer would admit young persons into his design department and assume responsibility for their further development should be evolved. This is the crux of the whole problem of industrial art training. The school should lay the proper foundation and the design room of the factory provide for continuing the education while making use of the existing qualities of the partially educated designer."

TRAINING
RECOMMENDED BY
DESIGNERS

Thirteen designers employed in sterling silverware establishments gave their views as to the training which they would consider most desirable for designers in this industry. Ten of these recommend that students should obtain their art training in art schools and three recommend that boys should first enter shops and then, if they show special interest or talent for drawing they should be given opportunity for study. From

two to four years is given as the desirable length for an art-school course. It is felt that general art training should precede specialized work in design.

There is a division of opinion as to the advisability of including craft work in an art school course, it being felt by some that this might better be undertaken in the shop under practical conditions. A majority of the designers believe that students should make designs for the market during their school training.

The work in art schools should include plenty of free-hand drawing (including life); modeling; the study of color; ornamental design including architectural styles, and period design in furniture, metals, and pottery.

One of the free-lance designers interviewed states that the average young designer and craftsman would receive benefit through studying drawing and modeling in evening classes and that the most talented in these classes should be given scholarships to enable them to devote all their time to study in a practical art school for a period of two or three years.

MUSEUM COLLECTIONS

A large majority of persons interviewed expressed the opinion that museum collections containing fine examples of silver are of great value as a source of inspiration to the designer. They feel it is important that such collections be arranged in historical fashion. Many of the representatives state their belief that copies and reproductions are quite or almost as helpful as originals and the thought is often expressed that fine museum pieces should be made widely available through reproductions or through photographs. While expressing their faith in the value of museum collections, many emphasize the conviction that books containing fine photographic reproductions are of almost equal value.

Exhibits of present-day silver are favored by several as a method of interesting the public but they are not approved as inspiration for designers as they might encourage copying—one of the worst features of the times.

Two representatives expressed the opinion that museums should be open in the evening; while three doubt that the collections would be much used by designers at this time except by those living near the museum.

SUMMARY

A large number of the persons interviewed in the silver trade express the feeling that the industry is at present in a serious situation both as regards skilled designers and craftsmen. From the standpoint of design as represented in its products, the condition is not at all a satisfactory one. Much of modern work, in spite of notable exceptions, lacks fineness of proportion and outline and often exhibits not only inappropriateness, but often ugliness of detail. Beauty of line and surface are frequently replaced by elaborate and poorly composed modeling which sacrifices the intrinsic qualities of the material for florid and showy effects.

More than any other industry, perhaps, the manufacture of silverware suffers in regard to freedom of design from its capitalized tools and fixtures. The large amount of money invested in still available dies and molds exercises a constant drag upon the production of new forms. The execution of a new design under conditions of machine production is an entirely different matter from its creation by a handicraftsman. In the former case the typical problem, after a new design has been developed in outline, is not how can this line or that proportion be still further refined, but how can old dies and molds be used in its manufacture. "The spout is very good, but cannot number so-and-so be used for it?" "The handle looks well but number so-and-so is almost the same thing." The machine has been developed to produce beautiful things in silver more cheaply, it has ended by the machine becoming a Moloch that often devours the possibilities of beauty. This is not the fault of the machine, but with the present attitude of the manufacturer, it is a decided obstacle as far as the creation of fine silver is concerned. It is because of this factor that the quest for the superfine in design so often ends satisfied with the "nearly as good."

At the present time the majority of designers have received no training in day art schools. A large number of them have come through the shop and in some cases have studied in evening schools. Shop experience, or rather an acquaintance with the technical processes of producing silverware, would seem to be a necessary element in the training of the designer, but it would also appear that a liberal art experience culminating in a specialized instruction is needed if the problem of artistic manufacture is to be dealt with in a competent and adequate manner.

It would seem extremely desirable that at least a portion of the designers in the silverware trade should have the background of a generous art-school training, familiarity with the collections of art museums, and companionship, for a period of their lives, with people primarily interested in art. The center or crux of this angle of the problem would seem to be provision for training which would give the necessary artistic instruction and inspiration, coupled with some method by which an understanding of the technical processes of production could be obtained. Whether this can best be acquired by including in the school instruction a certain amount of craft work in metal together with the instruction in manufacturing processes, or whether it can best be gained by cooperative arrangements with manufacturers under which the students would have opportunities for working in regular shops during a period of their training, is a question.

There is, on the other hand, a body of opinion that inclines to the belief that the best method of meeting the problem is to select young craftsmen and workers in the manufacturing establishments, who show some talent for drawing and modeling, and to afford these an opportunity for art-school study under a scholarship provision.

The question of what kind of school training is desirable is one that is tied up with the question of the location of the schools. A large central school has been advocated but it would seem extremely questionable whether young men, still in their teens, could be induced to come from different

parts of the country to any one locality in such numbers as would justify such a school. The more practical plan would seem to involve provisions for instruction in centers of silverware production.

It would seem evident that any scheme of practical schools cannot be wholly successful unless the manufacturers have intimate relation with their management. This might mean development of manufacturers' schools or it might mean co-operation with present schools through contribution to their support or through scholarships and by assistance through advisory committees composed of trade representatives. It would certainly seem clear, if these schools are to function, that manufacturers must take a very definite interest in the work, observe the character of the results obtained, come to individualize the students and develop a willingness to take the graduates into their shops as openings occur.

Whatever plan proves most practicable, it would seem of equal importance that there be recognition on the part of the employers that the graduates of any school at the best can only be prepared for a further apprenticeship under practical conditions and that American designers can be developed only when employers make provisions for the further development of these young persons in their designing rooms. Unless systematic attention is given to these beginners not only by providing instruction in methods of manufacture but in affording opportunities for continuous cultural growth, the material available through any system of school training can only prove unsatisfactory and ineffective.

It is also very evident that under present conditions the industry is dependent to a considerable extent upon evening classes for the development of its designers. The emphasis placed almost uniformly upon the need of understanding of the technical requirements and the desirability of gaining this understanding through shop experience, together with the history of the majority of the designers at present employed, indicate that instruction in evening classes will continue to constitute a large feature in the training of American

silver designers through the development of latent talent in the industry. Opportunities for such classes that will afford instruction in drawing can be found in most centers of the silverware industry. Opportunities for instruction in modeling such as is needed for silver, in period decoration, and in design are not so readily found. To insure such classes it is evident that cooperation will sometimes be necessary between manufacturers and school authorities either in the matter of support or of supervision.

Of equal importance in the minds of the representatives interviewed is the training of craftsmen for the silver industry. One of the real problems is to induce boys and young men to enter the silver industry at the present time. For this American manufacturers and American manufacturing methods in the silver industry would seem to be largely responsible. The trade needs men of rather exceptional quality but it actually offers only highly specialized jobs which are not paid on an exceptional basis. The industry, as a matter of fact, would seem to offer no more inducement on the side of wages or of opportunity than many other lines of factory work, while it needs the equipment and talent of the artist-artisan.

Another factor that is considered by many to be of great importance is the education of public taste in regard to fine design in silver. Thoughtful persons feel that a campaign of public education must go hand in hand with the development of the designer and craftsman. Silver is one of the art commodities that is largely put forth in illustrative advertising, but a number of manufacturers are of the opinion that in addition articles in the current home magazines would prove an especially effective method of reaching the woman consumer who represents the largest buyer and user of silver.

Another and related element felt to be a weakness in the present situation is the lack of artistic appreciation and knowledge of styles displayed by the average salesman. The situation is very similar to that enlarged upon in the study of carpets and rugs and would seem to demand similar methods, namely, provisions through cooperative measures of some

sort for talks upon the elements of design and composition and upon period art with special reference to silverware.

PLATED SILVERWARE

Eight establishments manufacturing plated ware, employing sixteen designers, and four establishments manufacturing solely flat ware, employing eight designers were studied.

Conditions in regard to design in these branches of the industry are very much the same as those which prevail in the manufacture of sterling silver. Fewer designers are needed, proportionately, inasmuch as this side of the industry deals almost entirely with stock or standard forms and also because the designs very largely follow those developed for sterling silverware. The same need for few, well-equipped designers is emphasized and the same opinions are stated in regard to the inadequacy of the present art schools to meet this problem by themselves; the same convictions are also expressed that the problem is not likely to be solved except by some form of cooperation between the art schools and the manufacturer.



HIGH-GRADE FURNITURE

The development of furniture manufacture in the United States has closely paralleled the changes in social and industrial conditions since the Revolution and has in particular reflected the increase in wealth during the last half century and the accompanying greater attention to comfort and luxury in the home.

After the period of fine cabinet-making formed on English traditions during later colonial times and the early years of the nineteenth century, American furniture rapidly deteriorated both in quality and design. With lack of any standard type and little interest in fine home fittings on the part of the country's expanding population, our furniture for three-quarters of a century reflected little of artistic quality or of traditional forms.

The American Renaissance in furniture may be said to have had its beginning in the eastern cities something over thirty years ago when cultivated women of wealth began to use original examples of European furniture in their homes. Influenced by the growing authority of architects trained in the *École de Beaux-Arts* this fashion set strongly toward the French styles for a period of perhaps ten or twelve years. With the vogue established by these original examples in the finer homes the practice was gradually inaugurated throughout the furniture trade of copying and modifying similar pieces, with diminishing degrees of faithfulness downward through the successive grades of manufacture. French furniture never became domesticated to any considerable degree in American homes because of lack of harmony with the general conditions of American home life. English furniture, which had always been used more or less, then became popular and has largely held sway up to the present time. Other styles have also figured in the situation. Brought about by certain leaders of fashion and particularly by the influence of Stanford White, Italian furniture of the sixteenth century

has been in considerable vogue during the last ten years for houses of generous proportions.

Another influence that has been prominent in influencing popular taste was that of the many antique furniture shops so much in evidence for the last thirty-five or forty years in New York and other eastern cities. The rising level of popular taste among educated people found many opportunities in these places for the purchase of originals, either colonial or English made, of fine quality both as to design and workmanship and the influence of these examples in homes of moderate income has exerted a considerable influence towards the fashion of period styles.

A similar influence in educating public taste and in furnishing suggestive examples to the designer has been exerted by the numerous auction sales of English, Italian and other furniture that have occurred in New York City during the last fifteen years.

NATURE OF
THE DEMAND FOR
DESIGNS

The reproduction of fine European examples has, in these ways, come to form the main business of the high-grade furniture establishments which center in New York, Boston and Philadelphia. Influenced by the practice of the expensive makers the manufacturers of medium-grade furniture have for the last twenty years also adopted almost uniformly the policy of period reproductions. In the case of this furniture, however, the reproductions have been to a large extent not exact copies but modifications of original examples to suit the popular taste and to better meet the requirements of economical manufacture.

High-grade furniture is designed both by interior decorators, who may or may not maintain their own factories, and by manufacturing establishments which maintain their own showrooms as well as execute work for special orders. Production of fine furniture is often associated with the design and execution of interior woodwork and in such case is often made as part of a complete decorative scheme.

**WHERE DESIGNS
ARE OBTAINED**

Aside from the decorators, concerns manufacturing fine furniture seldom employ more than two men in the design department, one of whom may be a designer, the other a draftsman. In some cases the proprietor performs the function of designer and, in still other cases, what designing is needed is done outside the establishment.

Records were obtained from fifteen establishments producing high-grade furniture. In one of these firms the superintendent of the factory is the draftsman and makes the working drawings from sketches made by the head of the establishment or persons outside the establishment. In all of the other firms, however, designers are employed who make the designs for new pieces. Three firms state that occasionally a design is purchased outside the establishment from free-lance designers at prices ranging from \$5 to \$40 or more. It is stated that the sketches bought outside are usually satisfactory but that the full-size working drawings often have to be redrawn before they can be used.

While several establishment representatives state that original samples of antique furniture are imported for purposes of reproduction, only one establishment purchases designs in Europe. The representative of this firm states that he considers European designs very much superior in ornament and composition and in clearness and accuracy in rendering to designs produced in the United States. With this exception opinion was uniformly expressed that there was no advantage in purchasing designs from Europe.

**HOW NEW DESIGNS
ARE DEFINED**

In high-grade furniture design outside agents often influence the character of the design to be developed.

A client, the architect, or interior decorator, may define quite definitely the nature of a design. Usually, however, a member of the firm or the head designer is responsible. When suggestions for new styles are brought to the firm through salesmen, clients or their agents, the final approval of the design is usually left to the production man-

ager, while the working out of the details is left to the designer. In four establishments studied the head designer performs both these functions.

The records obtained show that in the majority of cases the person responsible for new designs has been developed through practical experience in the business. In only three instances was it reported that he had had an art-school training. In one case the training was that of an architect in the École des Beaux-Arts in Paris, while two others studied in art schools in the United States.

WORK OF DESIGNERS Drawings made in developing the design for a piece of furniture are preliminary sketches—which may be in perspective or elevation—scale drawings, and full-size detail drawings. The first two are made during the process of developing the design. The full-size detail forms the working drawing that goes to the shop. The designer often makes the preliminary designs while a draftsman makes the full-size details. The designer, however, is sometimes also the factory superintendent and may develop the preliminary sketches as well as the working details.

TRAINING OF DESIGNERS In the past a large share of furniture designers came from Europe but this would seem to be no longer the case. A considerable proportion of the designers were found to have obtained their training under commercial conditions, in a few cases beginning as craftsmen. In a number of cases this commercial training had been supplemented by instruction in night art schools. A comparatively small number had their primary training in a day art school before they entered business. Opinions were pretty generally expressed that the foreigner excels the American in his thorough grounding in the fundamentals of furniture design and is liable to be more accurate, finished, and rapid in his execution of detail drawings. His training generally starts in at an earlier stage and continues longer. In the case of the American school product it is often found that his instruction

has dealt only with the making of preliminary sketches and has not involved the making of detailed drawings. This situation is reported as undergoing a change, and today American designers are being developed in more thorough fashion. For one thing it was reported that their school training often involves the making of carefully measured drawings of museum pieces both in scale and detail.

Sixty-two or more designers are employed in the fifteen establishments studied. Fifty-one of these were trained in the United States and nine in Europe, and two studied in Europe after an art-school experience in the United States. Of the fifty-one trained wholly in the United States eight studied in day art schools, thirty were trained entirely through practical experience in the trade, and thirteen were trained in the industry supplemented by study in evening art schools.

REMUNERATION OF DESIGNERS

The salaries reported range from \$1,500 to \$3,000 per year for assistant designers to \$5,000 or \$6,000 per year for head designers. In none of the establishments is there a general scheme of salary progression, advancement being made on the merit basis. One firm, however, reports that a bonus is given to the men but that this also is made on a merit basis.

DEMAND FOR DESIGNERS

Manufacturers report difficulty in obtaining young persons of satisfactory quality to enter their design rooms. The most evident cause of this difficulty would seem to be the considerable period of preparation required and the moderate salary available before a responsible position can be reached.

It has been suggested that young women might be of assistance to a limited degree in furniture design. It is doubtful, however, if they would be of value in the drafting room or factory in making detail drawings and superintending their execution.

One field in which women are available is that of painted furniture, which has become very popular in recent years. Women have been successful in the shop as decorative painters and have found here a work for which they seem to be particularly suited.

TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES

The qualities emphasized as essential in the successful designer are a high degree of skill in execution both of sketches and working drawings, an understanding of technical processes of production and an intimate knowledge of furniture styles and details.

Among weak points in the equipment of many furniture designers that are particularly stressed by employers are the following: the tendency to draw something that is not wanted and a strong desire to make original designs. Lack of knowledge of structural details is sometimes mentioned, but on the whole does not seem to be held as a serious defect as it is generally considered that knowledge of this kind can be readily gained in time. The idea has sometimes been expressed that a designer should have actually worked with the tools as a furniture craftsman. It would appear to be a fact, however, that the majority of the best designers have never had actual training at the bench. General opinion also seems to hold that craft work is not an essential in the designers' equipment. The opinion is expressed however that if designers are to be trained in schools, it is essential that provisions be made by which the meaning of technical details can be thoroughly explained to students on the one hand, and opportunities to study actual factory processes developed on the other.

The value of architecture in furniture design is regarded as that of a finishing study. Nothing else will give an equal understanding of structural design and of the origin of most ornamental forms in furniture. The opinion was often emphasized that the best furniture designers in the future will be those who have had a fair amount of instruction in this art.

TRAINING
RECOMMENDED BY
DESIGNERS

Views as to the training of designers were obtained from ten designers employed in the establishments studied. The opinion was generally expressed that a school training can be made effective if proper subjects are well taught and enough

time is given by the student. Three or four years is an average estimate of the proper length of a course. A general art training should come first, then the special preparatory studies, and then the technical studies. The course should include museum work, and afterwards, preferably after a year or so in business, the student should travel abroad. Because of the limited demand for furniture designers, three state that the work in furniture design should be undertaken as part of another course and not as a separate course. It is generally conceded that work in drawing is of primary importance. The course in drawing should include sketching, architectural drawing, perspective, scale and full-size detail drawing. The study of architectural elements, historic ornaments and period styles as well as study of materials should also be included. Several designers emphasize the value of study in museums in making measured drawings. One designer recommends the practice of employing foremen or other practical men from factories to come to the school to criticize the work of the students. It is felt that more than one man should criticize the same work so that students may note the variations in practice.

MUSEUM COLLECTIONS

It is evident that historic art will continue to influence work in furniture design for a long time to come.

Designing in this field at present is probably more dependent upon opportunities to study fine and authentic examples than is the case in any other industry. American museums have developed considerable collections of such examples the suggestiveness of which is by no means exhausted. It is, however, generally felt by manufacturers that our museums have developed their collections much more with an eye to historic completeness than to presenting examples of direct suggestiveness in the furnishing of modern homes. In this respect it has been said that no museum collection in this country rivals the exhibit of reproductions that can be found in the showrooms of New York manufacturers.

All of the fifteen establishment representatives agree as to the importance of museums. It is generally felt that plates, photographs and careful reproductions should be exhibited as well as originals. Five believe that present-day products should not be included, one of these stating, however, that a yearly exhibit of good designs might tend to raise the standard of designs throughout the country. The remaining ten representatives take the opposite view, one citing the exhibition of modern work at the Musée des Arts Décoratifs in Paris as an example.

The museums in this country which are mentioned as being helpful to furniture designers are the Boston Museum of Fine Arts, the Metropolitan Museum and the Cooper Union Museum in New York City. All believe that museums should be open in the evening.

SUMMARY

Furniture design in this country has passed through several cultural epochs and is at present in practically

complete dependence upon European historic styles. For the moment, and for some time to come, such a policy or practice probably represents the best that can be done. In a field that has experienced such long and varied development in many countries, design has not only reached high achievements but has expressed itself in great variety not only of individual examples but of styles. The practice of reproducing and closely following these fine examples of design unquestionably brings into American homes a fairly high level of design, even in comparatively inexpensive furniture, and exercises in this way a positive and helpful influence upon popular taste.

Development of new styles of any artistic worth in this field can come only gradually. The initiative will probably not lie with the manufacturers of furniture, but rather with the architects and interior decorators. When these find the opportunity through the development of new demands it may be expected that they will not lack the courage and ability to break away from precedent and develop new schemes of

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interior decoration. In such case furniture design will quickly respond. If these movements prove sufficiently well considered and express more than a passing whim or fancy they are liable to affect the entire field of furniture and inaugurate new styles and schools of design.

The number of high-grade designers needed in the manufacture of fine furniture is not large, but there is evidently a distinct need for a few superior individuals possessed of talent and thorough artistic and technical equipment. To train such persons adequately will require time and if it is to be accomplished in day schools the economic problem presented in securing such a training will be a rather serious one. The kind of American youth liable to be attracted to this field can only in exceptional cases afford a three or four years' training beyond the age of sixteen. For this reason it is very likely that scholarships contributed by the trade would be of much assistance in this matter.

It is possible that a thoroughly developed day-school course for furniture designers can be maintained successfully in New York City. Whether conditions in Boston, Philadelphia or other cities admit of such a plan is doubtful. Such a training should evidently be distinctive from the usual courses in interior decoration now given in a number of art schools, but because of the small number of designers that the industry can be counted on to absorb it is probable that the needed instruction can best be developed in conjunction with such a course as an elective or option. A course of this nature while giving its main attention to furniture design should undoubtedly include the subject of interior woodwork and give some attention to the whole subject of interior decoration. The course of instruction should develop thorough technique in the rendering both of sketches and detail drawings. The various methods of construction should be fully illustrated. The study of the various cabinet woods, their qualities as to strength and durability, methods of construction appropriate to each, and methods of finishing should have an important place. Understanding of factory processes of production should be de-

veloped by observation in a producing factory. A thorough acquaintance with period styles and motives is obviously fundamental. The course should afford opportunity for direct study in museums and the making of measured drawings from examples contained therein. There should also be opportunity for the study of architecture both from the standpoint of building structure and of architectural forms.

To enable such a course to keep in close response to the commercial situation it is extremely desirable that close relations with an advisory committee of trade experts be developed.

Because of the difficulties involved in day-school training as a preparation for furniture designing it is evident that much reliance must be placed in evening instruction. To the alert-minded, ambitious young cabinet-maker, carver, or draftsman opportunity is presented in New York City and in many other places to acquire skill in free-hand drawing and modeling and to study composition and interior decoration and furniture design in such instruction. Joined with knowledge of the technical side of the trade, such studies earnestly pursued give opportunities for the young craftsman with talent to become a promising apprentice in the design room, and it is apparently to such provisions that the furniture trade must look to a considerable extent for the development of recruits in this field.

MEDIUM-GRADE FURNITURE

Beginning with the early years of the nineteenth century expansion of the country toward the west became the prominent fact in American life. The furniture problem as concerned with new settlements along the Ohio, the Mississippi and other rivers was largely a question of transportation, and it was this element that mainly controlled the character of furniture development during the succeeding generation. The business genius who organized methods of transporting furniture to the head-waters of the rivers and loading on flat boats for distribution down stream became the dominant factor in the situation. The furniture needed by the settlers was a kind in which artistic considerations played little part, and inasmuch as this was a period when the traditions of furniture styles in Europe, and consequently in the eastern seaboard, had fallen away, this manufacture of rough and ready furniture for the newer districts gradually dominated the whole American market.

Later came the development of factories in places in the Middle West favorably situated in regard to good lumber. These factories concentrated their attention mainly upon inexpensive methods of production through the making of standardized parts. During this period the designer was almost entirely submerged in importance by the business organizer, distributor and salesman.

At Grand Rapids, settled by the Dutch and peculiarly favored by water power and a liberal supply of timber, the manufacture of furniture began in the late thirties. Aided by a peculiarly industrious and stable population, Grand Rapids has increased steadily throughout the machinery epoch as a center of furniture manufacture.

This city and large numbers of factories situated from New York state to the Middle West have come to supply the medium grade furniture consumed by the country leaving the manufacture of the highest grade and most expensive types largely concentrated in a few eastern cities.

NATURE OF
THE DEMAND FOR
DESIGNS

At the time of the survey the market for medium-grade furniture, as for many other commodities, was abnormal due to the fact that the demand greatly exceeded the output of the factories. Most establishments were, in consequence, so busily engaged in turning out staple patterns that little attention was paid to the creation of new designs. In normal times, however, there is a constant demand for new designs to replace lines that are not selling well. One establishment representative states that as many as six hundred patterns are carried at one time. The demand for new designs is usually brought to the firm through salesmen who reflect the needs of the different localities in which they work. Different parts of the country tend to particular variations. This is exemplified by the varied demands for tables, e. g., round tables are much used in the west, square tables in the east, and long narrow tables in the south.

Manufacturers of medium-grade furniture execute some special design work to the order of clients whose architects or interior decorators define the style, but this is of comparatively small extent.

WHERE DESIGNS
ARE OBTAINED

In a large number of cases the factories are too small to employ a regular designer and designs are usually obtained from persons who work as free-lances or contract to devote a certain amount of their time to a particular concern. These free-lance men travel from town to town with a collection of designs. If a manufacturer decides to buy some of the sketches the designer makes the details at the factory and then passes to the next town. It is reported that many of these men know little about designing or manufacture and make a very uncertain living, but some of the more successful ones are reputed to make from fifteen to twenty thousand a year. The number of designers of this class has been greatly reduced in the last few years because of the lack of change in stock patterns.

It is reported that free-lance men rarely do as good work as designers employed at a salary, partly because they cannot understand the requirements of the individual factory so well and partly because after making the full-size drawing they lack the opportunity of observing the production of the actual piece of furniture.

Sixteen of the twenty establishments studied employ designers. Except in one establishment, where about one-third of the designs used are purchased outside from free-lance designers, the designing staffs are depended upon for the development of new designs.

Three of the firms which employ no designers depend entirely upon free-lance artists for their designs. In one other establishment a member of the firm was the designer.

Two of the firms employing designing staffs state that occasionally designs are purchased from outside sources in order to obtain new ideas and to give their designers another viewpoint. Fifteen representatives state that they do not consider the existence of designers outside the establishment as valuable because of the inability of the free-lance designers to study the product as it develops and their limited understanding of machine production. Five others believe that the free-lance designer is a desirable and valuable factor, because he brings new ideas and suggestions to the small manufacturer and because many small firms cannot afford to employ an efficient designer.

None of the firms studied purchase any designs in Europe. It is quite generally felt that modern European designs are very much inferior to the American for medium-grade furniture.

HOW NEW DESIGNS ARE DEFINED	In this class of furniture work patterns are changed only when they cease to be popular. The introduction of new designs slows up the speed of production and inevitably increases the expense.
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Usually sketches are made by the designers in the establishments and are submitted to representatives of the sales

force for criticism. Certain of these are selected and carried into full-size drawings. In some cases a single sample is made from the selected design for further study on the part of the designer. In other cases samples are made up and photographed and taken by the salesmen to the retailers. If the design is acceptable to the retailers the pattern is then executed in quantity. Sometimes a small quantity is made up at once and tested directly as to public demands. In some establishments a member of the firm working with the designer fixes the character of new designs without a preliminary testing out.

The establishments visited all manufacture furniture in large quantities or cuttings. No one man carries the work of any piece of furniture to completion, but usually operates a machine that performs some one detail of the manufacturing process.

For this reason it is not necessary for the labor to be skilled cabinet-makers, as inexperienced help can be quickly trained to operate most of the machines. In many factories girls do some of the work.

As a rule the designers are allowed plenty of time to make a design and turn out only a limited number in a year. The rest of their time is devoted to the supervision of production in the factory or in travel for study, or visiting buyers and concerns selling the products of rival furniture manufacturers.

No women designers were found in any of the establishments visited. The explanation is probably that designers are often required to supervise the production of furniture in the factory. The requirements of travel and visiting buyers are also met more readily by a man than a woman.

Rough sketches are first made by the designers. Those selected are then developed in detail and large-scale drawings. Sometimes perspective sketches in pencil, pen, or color are made for salesmen. The scale drawing goes to the shop and samples are made up. Any changes deemed desirable are made before a large number of pieces are turned out. This study of effect in the actual piece is essential in furniture,

particularly in the case of chairs where the size and proportion of such members as stringers, crossbars and legs is often very different when seen at an angle from the effect as viewed in a projection drawing.

Although the aim of the designer is generally to create a design of the finest quality, he is much limited by machine requirements, the cost, and popular taste. As one designer points out, when the public demands Italian designs, it does not mean true Italian style, but the popular conception of that style.

In this class of furniture work the only men who can be called craft workers are the carvers. Most hand-carving has been eliminated from this class of furniture owing to the cost, and a cast composition from a carved original is used instead. This composition is sometimes made at the factory and in that case a carver is necessary to make the original. In many cases this ornament is bought from concerns who make a specialty of this work and have a great variety of designs in catalogue form for the designers to select from.

Most of the carvers are of foreign birth or parentage, as American boys do not seem to take kindly to this work. In Grand Rapids schools of carving have been opened by the manufacturers but have failed to attract boys to the trade. Most of the carvers seem to be Swedish, German or Italian.

TRAINING OF DESIGNERS

Twenty-two designers are employed by sixteen firms. Three of these are employed only part time and three others act in the capacity of factory superintendent as well as designer for their respective establishments. Thirteen of the twenty-two designers employed were trained wholly in the United States, five in art schools, seven in commercial practice and one in commercial practice supplemented by attendance upon evening art school classes. Five designers were trained wholly in Europe. Of these three attended day art schools, one in Paris (École Boulle) and two in England. One was trained in commercial practice in England and one in Sweden. Three other designers were

trained first in art schools in the United States supplemented by later study in Europe. One other studied in art schools in Germany followed by commercial experience and attendance in Sunday art classes in the United States.

Many of these designers have had many years of experience in interior decoration design of a high grade. This understanding of high-grade furniture and its proper placement has given them a good background for their present work. Very few of the prominent designers were found to have had shop training of any kind.

Attempts to develop young art-school graduates in the design rooms were rarely found. In one case, however, the representative of an establishment where two designers had received training in an art school states that he would endeavor to secure new designers from the same school should the need arise.

Many of the better designers in Grand Rapids are English but they are hardly in the majority. Most of them have had decorative experience with high-grade establishments in New York or London. They do not seem to have had any special schooling in England. A large manufacturer of bedroom furniture employs French designers because the firm makes many bedroom sets in the French periods.

In Rockford, Ill., most of the designers are developed locally from carvers or from men with shop experience. These designers are mostly old men and the manufacturers are seriously considering the problem of replacing these men when they are no longer able to do the work.

Records were obtained from nine free-lance designers of furniture: Six were trained wholly in the United States. Of these one attended a day art school, four were trained wholly in commercial practice and one was trained in commercial practice supplemented by the study of drawing in an evening art school. Two were trained wholly in Europe, one in a day art school and through museum study in Austria, Germany, Belgium and England, while the other spent considerable time studying in museums in England, making measured

drawings and sketches of furniture. Later he was employed in the design room of one of the largest furniture manufacturers in London. One other, after studying for several years in an art school in the United States continued his training in art schools in France and Germany.

Designers in Grand Rapids and to some extent in other places, are often allowed to travel and study at the expense of the manufacturer, as the latter considers it necessary to keep his men well informed as to the latest developments in furniture design and to afford them all possible stimulation.

REMUNERATION OF DESIGNERS

The salaries of designers range from \$3,500 to \$5,000 per year. Free-lance artists receive from \$10 to \$100 for designs, depending upon the number

of pieces in the suite.

DEMAND FOR DESIGNERS

There seems to be no shortage of designers in this field, and although the common desire was often expressed for superior talent it is evident that

the number of well-equipped interior decorators available is sufficient to supply the demand in a fairly satisfactory manner.

In this matter of designers the quantity production manufacturer can usually afford to outpay the interior decorator. In interior decoration the expense of the design forms an item in the cost of the individual piece while in the quantity production factories this item is but a small part of a widely distributed overhead charge.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

Weak points in the equipment of designers are said to be lack of knowledge of historic ornament, of feeling for good line and proportion, and of understanding of factory requirements. Two of the representatives

state that it takes the average designer about two years to pick up the needed technical knowledge. It is felt that the personal qualities needed in a designer are creative imagination, sensitiveness to new ideas and accuracy.

The majority of the representatives state that a good foundation for beginning work in a design room can be gained in art schools if the needed subjects are taught and taught effectively. Sixteen believe that craft work, or rather study of the processes of production, should have a place in the school curriculum. On the other hand, few held the view that a designer should have any special shop experience and many employers were of the opinion that if a designer had made very much of a study of construction problems his design is likely to be lacking in beauty of line and proportion. While it is necessary for the successful designer to understand the limitations of the machinery of his particular plant and the class of labor employed the opinion was generally expressed that such understanding can be readily gained in the course of practice.

It is uniformly considered impracticable for the student to perform commercial work for sale while in school. Ten representatives believe that evening classes may be very helpful in training designers, especially beginners.

Some manufacturers in Rockford, Ill., have gone to the trouble of training several young men to fill the places which will be vacant when the present designers retire, and have found positions for the young men either as assistants to the older designers or in smaller factories. This was the only place where the manufacturers seemed concerned with the development of the younger designers. In other places the manufacturers felt that they could not afford the time necessary for such training, preferring to obtain well-equipped men from interior decorating establishments and then to train them to the needs of their particular class of manufacture. They were of the opinion that such antecedent training is necessary to give the proper cultural background which they believe can only be gained by working upon complete schemes of decoration and furnishing. The claim is made that when such designers are later put to quantity production work in furniture this early influence tends to elevate the standard of design in this grade of work. Through this system of securing

designers it is stated that furniture has vastly improved in appearance in the last ten years.

Most of the manufacturers seem to favor a cultural education for their designers rather than a man who has grown up in the shop. They say the shop knowledge necessary can easily be acquired after the designer is in the business but that refinement of taste must be acquired in their schooling or previous surroundings.

TRAINING
RECOMMENDED BY
DESIGNERS

Views as to school training of designers were expressed by twelve designers employed in the establishments studied. The following elements were emphasized as desirable in such training: drawing and modeling of historic ornament, drafting, projection and perspective, study of period furniture design, making full-size detail drawings, study of architectural motives and styles, practice in making measured drawings from specimens of furniture. Four designers recommended that craft work be included. One recommended that a man spend two years in a shop, then two years in a school studying ornament and drawing.

Seven free-lance designers expressed opinions. One recommends that the work be undertaken mainly in a museum, making sketches and measured drawings and that general art training accompany this work. One believes that the training can all be acquired in a shop. The five others believe that the training should be gained in an art school. Two of these believe that the course in furniture design should be included as a branch in some other course such as interior woodwork or interior decoration. It is believed that drawing from the cast and life, modeling, training in the principles of design, history of art, study of historic styles and elements of architecture should be emphasized. Four believe that work in general art should precede specialized work in design. Two believe that craft work should be taught, one believes that it is not necessary but that it would be helpful, while four believe that it should not be taught. The majority believe

that students should not make designs for the market while in school. From two to four years is mentioned as the desirable length of school course.

MUSEUM COLLECTIONS

All consider museum collections of furniture as of great importance in the training of beginners as well as in affording inspiration to the experi-

enced designer. While it is admitted that original specimens are best, it is generally believed that good reproductions and photographs are very useful. There is a division of opinion as to the value of including present-day artistic products, the majority feeling that they should be so included. One representative states that a yearly display of artistic furniture would tend to better design and more conservative buying. The museums which are mentioned as being very helpful are the Metropolitan Museum of Art and the Cooper Union Museum in New York City. All believe that such museums should be open in the evenings.

SUMMARY

It is apparent that the requirements placed upon the designer of medium-grade furniture are fully as onerous

as in the case of the designer of the finer product. It is also clear from the findings that the remuneration paid in the large establishments producing moderately priced furniture is equal to that received by the designer whose work is marked by more exact period quality. The breadth of training needed by the man at Grand Rapids is apparently as great as that needed by his New York confrère, and the requirements of the situation seem to be so similar that the summary in regard to training possibilities for the designer of high-grade furniture would seem to apply equally well to the conditions represented in medium-grade furniture.

LIGHTING FIXTURES

NATURE OF THE DEMAND FOR DESIGNS

Within recent years there has been a great development in the production of lighting fixtures, not only from the standpoint of utility but from that of beauty of design. Electricity has called attention to new possibilities in methods of lighting and these possibilities have added greatly to the scope of the designer and the opportunity for artistic effects.

The number and variety of fixtures in use have become so extensive and their decorative possibilities so great as to raise the question of the suitability of the word "fixture." Manufacturers feel that the term is not adequate and are considering the adoption of other words such as "furniture" and "illuminator."

As in most art industries, two classes of manufacturers are represented: the high-grade special-order firms and the establishments producing moderately priced goods in large quantities. Some firms cater to a fairly high-class custom trade and produce in quantities at the same time. The establishments producing the finest products do not confine themselves strictly to lighting fixtures, but produce as well decorative bronze, iron and other metal goods for the equipment of either residences, hotels or commercial buildings. These high-grade establishments are well equipped to undertake metal work of almost any kind and are daily adding to their creations in the production of decorative bronzes, grills, tablets and other ornamental work. In the industry as a whole many trades are employed, with all of which the designer must become familiar as to processes and materials.

Establishments dealing with quantity production do not generally confine themselves to the production of lighting fixtures. Even in this field demand for improved quality of designs is constantly growing.

**WHERE DESIGNS ARE
OBTAINED**

All of the establishments studied employ designers upon whom they depend for new designs. No designs are purchased outside the establishments from free-lance designers and none are bought in Europe although models and antique examples are often imported.

**HOW NEW DESIGNS
ARE DEFINED**

In establishments where custom work is carried on, clients, their architects or decorators often define quite specifically the scheme that they wish developed. The type of design, dimensions, extent of elaborations, cost, motives, etc., are commonly indicated in such cases.

The art director of the establishment may make suggestions which are often accepted, but this type of work usually involves conditions presenting limited scope for originality. It remains for the designer to put the problem in a practical and at the same time beautiful form and to add whatever is necessary in structural or ornamental details. The work of the designer is usually supervised by a member of the firm or an art director. This person commonly defines quite definitely the character of the stock designs made by the firm. Much of the responsibility for the success of the designs evolved by these firms rests with the art director.

In one firm the partners in the firm as well as the salesmen supervise the quality of all designs. These men were all developed through commercial training. The art directors of two other establishments were also developed in the business.

These men bring high critical and in some cases creative ability to bear on the artistic quality of new products. The other three art directors have received training in designing; one attended art schools in the United States, supplemented by travel abroad, while the other two were trained in art schools abroad. One of the latter also traveled extensively in Europe and in the Orient.

**WORK
OF DESIGNERS**

Establishments making lighting fixtures and metal art work sometimes employ a large number of designers and draftsmen who represent varieties of equipment. Those with greatest ability and training are entrusted with the designs while draftsmen make the full-size details. The largest concerns employ as many as twenty to twenty-five designers and draftsmen while in the smallest establishment studied one person acts in both these capacities. Two to four men represent the average staff found in the establishments.

The drawings required are preliminary sketches, which may be in perspective or elevation, scale drawings and full-size details.

Concerns soliciting business from architects and decorators make a great many sketches to represent either new designs or fixtures in stock. These are generally expressed in pencil but are often rendered in other media and require much skill.

Full-size details are made for the work in the shop. When intended for new work they must be made with particular care in regard to ornament and structural details. In the case of altering stock fixtures, which is a common practice, detail drawings are made showing only the altered or new parts.

In all these establishments processes of reproduction and duplication are largely used. In this way a large quantity of patterns accumulate which are extremely valuable. The designer has, consequently, before him very frequently the problem of combining these patterns with new work or modifying them to meet new demands.

**TRAINING
OF DESIGNERS**

The six establishments studied employ a total of fourteen designers and thirty-seven draftsmen. Eleven of the fourteen designers were trained in the United States, three in day art schools and six in commercial practice supplemented by study in evening art schools and two wholly in commercial practice. The remaining three designers had their first training in art schools in Europe, supplemented by later study in the United States.

Four of the designers report that they have traveled in

Europe, making sketches and measured drawings in museums, after taking up work in this field.

Of the thirty-seven draftsmen, thirty-five were trained in commercial practice in the United States and two in commercial practice in Europe.

With one exception it is stated that the work of designers employed at a fixed salary tends to deteriorate after a time. Measures reported by establishment representatives to prevent or overcome this tendency are: sending designers to Europe, keeping their surroundings as artistic as possible, encouraging them to study, and giving them credit for their work. One firm states that satisfactory results have been gained by a scheme of competitions and prizes.

Manufacturers are earnestly endeavoring to obtain for this industry the recognition of the public as to the importance of the art product produced.

REMUNERATION OF DESIGNERS

The salaries of draftsmen are reported to range from \$1,800 to \$2,500 per year and of designers from \$1,800 to \$7,000. There would seem to be no general scheme of salary progression, but all salaries are said to be based upon the value of the designer to the firm.

DEMAND FOR DESIGNERS

The number of designers needed is not large but the increasing standards of the industry are constantly calling for more broadly and thoroughly equipped persons. The same difficulty in finding the right kind of young persons to train for designing work is reported in this industry as in the case of furniture and other trades. Few young persons seem well fitted for the work, and the moderate pay available for beginners as compared to many other lines in trade and business undoubtedly acts as a deterrent.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

The main weakness found in the training of designers is stated to be their inability to adapt what they have learned in school to commercial requirements. Personal qualities emphasized as important in the designer

are creative imagination and feeling for line, proportion and color. It is stated that the more cultural education the designer possesses, the better designer he is liable to make. All establishment representatives believe that young persons should have at least a high-school education before beginning their art training.

Subjects emphasized in connection with art-school training are: facility in free-hand and instrumental drawing; knowledge of historic styles; understanding of the technical processes of casting, forging, chasing and of the qualities of different metals. A number of representatives feel that much can be added to the value of the designer by affording him experience as a salesman with the resultant contact with clients. One employer brought forward the question as to the possibilities of women as designers in this field and made the point that the problem of lighting is very closely related to home furnishing and that women are often quicker to see possible motives for lighting effects than men.

All of the representatives report that evening classes can be of help in the problem of training designers already in the trade by affording them opportunities to perfect themselves in drawing and modeling and by assisting them in problems in advance of their usual work.

TRAINING
RECOMMENDED BY
DESIGNERS

Interviews emphasized the point that designers cannot depend solely upon the design of lighting fixtures for a living but must be prepared in related lines of metal or other work. The

course of training for the designer in this field should, consequently, be part of a course of broader scope.

It is thought that the length of the school course preferably should be three years and not less than two. A general art training is recommended to come first, together with the ordinary processes of free-hand and mechanical drawing. Considerable attention to historic ornament is imperative as design practice at present follows that of interior decoration, in which the historic periods dominate. Architectural design

is invaluable as it makes clear the principles of structural design as no other study can and acts to coordinate the other studies.

MUSEUM COLLECTIONS

All of the establishment representatives express the opinion that museum collections should be made up of original specimens so far as possible but that reproductions may be made of much value. All feel that selected present-day products should be exhibited in order to show the public what is being done and also to stimulate manufacturers and designers. It is felt that the Metropolitan Museum of Art has done much in meeting the needs of this trade but that more could be done. All believe that museums should be open in the evening.

SUMMARY

The variety of production in this field as represented by the high-grade establishments referred to above, not only opens up large scope for the designer, but when the fact is taken into account that the products of these concerns must meet the requirements of the most fastidious homes on one side, and the criticism of architects on the other, it is clear that a very high quality of design is called for and one for which a sound training is necessary.

On the other hand, the number of high-grade designers needed is hardly sufficient to support a distinct three or four-year course in a day-time school, even in New York City. The economic and other problems presented are very similar to those noted in reference to the furniture trade. The quality of designs in common demand is very closely related to period decoration and, as in the other case, the designer requires something more than a specialized training to insure his future prospects. As in the case of furniture design, such a course can probably be maintained most practically in conjunction with a course in interior decoration in which the design of lighting fixtures and decorative metal work for interiors is offered as an elective.

It would seem clear that the following recommendations should find expression in such a course: emphasis should be

given to free-hand drawing and rendering in water-color to develop facility in sketching; a study of color harmony should be included; attention should be given to scale and detail drawings for the shop; the study of period historic ornament as related to wood and metal work and particularly as to historic forms of lighting fixtures should be given a prominent place; the architectural styles, particularly with reference to interiors, should be a basic element in the course; instruction should be comprehended that will give an understanding of the technical processes of casting, forging and chasing, and familiarity with qualities of metals used for fixtures and interior decoration; the constructive requirements entailed by electric wiring should be made clear and the principles of economic production should be emphasized.

Here, as in the case of furniture design, it is evidently very desirable that the limited opportunities presented by day-school training should be supplemented by instruction in evening classes. Courses in interior decoration giving special attention to the subject of lighting fixtures and metal work, if directed by persons of real practical and artistic ability, would be of much service to draftsmen in the design rooms of fixture establishments. With their knowledge of the processes of production such young men should be able to gain much through the study of design and decorative periods afforded in such classes.

As in the case of certain other trades, it would seem very desirable that the sales force in this industry should receive the benefit of instruction in matters that will make them more fully appreciate the quality of the designs created by the establishment both from the constructive and the artistic standpoint. Such material could be given in the form of illustrated lectures much in the way referred to in the report on carpets and rugs. The subject matter might well include the properties of the various materials used in fixtures and the processes employed in their production as well as information in regard to period design as related to interior decoration and particularly to lighting fixtures and decorative metal work.

ORNAMENTAL BUILDERS' HARDWARE

Thirty or forty years ago in this country it was the universal custom to leave the selection of the hardware for a house to the builder, who purchased according to the sum of money at his disposal. Hardware at that time was made for utility only and was as inconspicuous as possible. Later on the practice of using a metal plate to cover the keyhole and knob shank became more common, and door hardware became in this way more important as an element of decoration. The selection of hardware for a new house then became a subject for an appointed visit on the part of the owner and his architect to a hardware store, where the most suitable selection was made within the sum specified in the builder's contract. Thus the place occupied by hardware as an element in building furnishings gradually grew to be of more importance, sometimes reaching the point of requiring a separate contract.

An increasing interest in interior decoration and furnishing helped materially to bring about a demand from architects for hardware possessing some degree of harmony with their work. Well-designed hardware became such a matter of demand that in the late eighties and the nineties of the last century certain large manufacturers sought the services of expert designers in producing what is commonly called "period hardware." These undertakings were in particularly notable cases prosecuted with great thoroughness and no expense was spared to achieve a thoroughly artistic result. Occasionally designs made by architects for the hardware of buildings they were erecting were also adopted by manufacturers as stock patterns.

It has been a common practice in the hardware business for about twenty years to keep up a regular stock of such "period hardware." This practice, however, has apparently not proven consistent with the methods and demands of quantity production. To maintain such a stock has entailed great expense, which has been found after some years of experience not to be warranted by the demand. Naturally some patterns were

used frequently while others were seldom called for. But the sales of the popular patterns have not been sufficient to pay for losses entailed by the others. And, furthermore, it frequently occurred that while many of the designs were in harmony with the styles in vogue, architects would require changes in the details and thus cost was added to an already expensive article.

This outcome would seem to indicate that it is extremely doubtful whether our large manufacturing concerns can be counted on in the future to supply the market with a large variety of finely designed hardware. The policy in vogue at present is in the opposite direction, namely, to reduce the forms to a comparatively few standardized types of simple design and to rely upon the architect when special patterns are needed.

Another change which is significant in regard to this new policy is illustrated by the fact that some of the large companies have given up their showrooms and sales force and are dealing with the trade only through jobbers and retailers.

Under such conditions the design staffs of large concerns are limited to one or two draftsmen whose work is confined to such mechanical adjustments as may be necessitated by the practical requirements of large orders. In the case of special orders the draftsman may act as a designer, but even in such cases it is more than likely that the design will be furnished to the company and the draftsman's task will be simply to bring the design into practical form for the factory.

There are, however, a few firms manufacturing builders' hardware outside of the very large organizations that are well organized for dealing with special work. It seems quite likely that the business of these concerns along artistic lines will increase. Another tendency to be noted is that some of the more important church and other elaborate hardware is being executed by concerns producing decorative metal work.

It is apparently only in these two kinds of establishments that design in building hardware will find any large opportunity and it must be borne in mind that this field, even at its

fullest development can employ but a few designers. Preparation for this field may well be gained through courses in art metal work as suggested in connection with the study of lighting fixtures.

WALL PAPER

Wall paper as a decorative covering for walls has been in use little more than two centuries. Previous to this time, and after the earlier practice of paneling, walls in the homes of the rich were covered in whole or in part with painted decorations, tapestries, stenciled and printed linens, brocades and velvets or stamped leather. Wall papers were devised to furnish an inexpensive means of decorating the walls of less wealthy homes. They were at first strongly imitative in character, reproducing the patterns of fabrics or leathers or the effect of decorative painting.

The first wall papers printed in small squares from wooden blocks were printed by Papillon, of Paris, who invented the process in 1688. These squares were pasted together to form sizable rolls for the paper hanger's use. In 1829 strips nine metres long were printed from rolls operated by hand. In 1852 the modern power-roller printing machine was developed.

At the present time there are two types of mills: one in which the standards include care in all the processes of designing, coloring and printing, and where superior artistic value is aimed at in the finished product, and the other where speed and maximum production are all important. In the former eight miles a day is often the rate of printing considered necessary to assure the results desired, whilst in the other mills, where volume output is the essential feature, machines are often run at a speed which prints eighteen or twenty miles a day.

Hand block printing, although accomplished with blocks of small area, allows the ready multiplication of blocks with different cuttings and the consequent opportunity of bringing together the printings in large compositions. In modern roller printing, on the other hand, the pattern is necessarily limited in length to the circumference of the roll and repeats itself in such units upon the strip. A certain amount of high-grade block printing is done today by a few American firms. The high cost of such work naturally limits production to special effects and relatively expensive papers.

Printing by hand blocks also permits of stronger color effects inasmuch as the entire set is printed from each block at a time and the paper allowed to dry before another block is used, whereas in cylinder printing the colors are necessarily mixed thin to allow of the rapid drying required for economic operation of the machine. Furthermore, machine printing is practically limited to twelve rollers or colors, whereas hand block printing has no mechanical restrictions as to the number of colors that may be employed.

In the early period of wall-paper making the introduction of the new material depended upon a strong appeal through its artistic quality. The market was confined to comparatively well-to-do persons living in fine homes to whom a method of wall covering less expensive than the earlier methods would appeal, but whose aesthetic standards were based on the older practices. This class constituted a discriminating group of buyers from the artistic standpoint, and one that would be satisfied only with fine designs, viewed by the standards of the day.

During this early period the art of engraving and color printing reached a high degree of development, particularly in France, where it was encouraged to a large extent by the French court and nobility. It was the French manufacturer, Revillon, who, in 1784, had bestowed upon him by Louis XVI the honor of royal patronage, which gave him the right to add the royal insignia of crown and fleur-de-lis to his trade-mark. This encouragement is responsible largely for the fine quality of these early wall papers which were often designed by artists of distinction. While many of these early papers were printed in a variety of strong colors, others were printed in grisaille, producing a quiet, soft-toned effect.

With the introduction of roller printing, wall paper ceased to be an article of luxury and became a matter of common use. Today wall paper is regarded almost as a universal necessity for covering the walls of homes. According to the United States Census of 1914 the product represented a total value of \$15,887,123, the value added by manufacture being \$7,350,868.

NATURE OF THE DEMAND FOR DESIGNS

The demand for new designs in wall papers comes to the manufacturers through salesmen, jobbers, and customers. Up to fifteen years ago it was the general custom to employ salesmen to sell to the retail trade. Since then the jobbers have become more and more the important factor in distribution. They purchase from the manufacturer and distribute by means of sample books to the retail trade throughout the country. These sample books, which are generally eighteen by eighteen inches in size, are often claimed by designers to exert a restraining influence in the matter of new designs, because their limited size prevents the effect of all but small pattern papers from being appreciated. This restriction is said to be so considerable that many manufacturers develop their designs not on the basis of their effect upon the wall but on how they are going to look in the sample book. The jobber has naturally come to exert considerable influence over the quality of the manufacturers' designs. He informs the manufacturer at the end of each season which of the papers were the best sellers and these designs are generally repeated for the next season. In many cases also the jobber anticipates and suggests the colorings for the coming season.

In centers like New York City the large stores kept by jobbers have become to a large extent the accepted medium through which the American public find it most convenient to examine and purchase wall papers. The mail-order houses also sell large quantities of wall papers which are put out in sample books about six by nine inches, through which little idea of the design except color can be gained.

WHERE DESIGNS ARE OBTAINED

Interviews were obtained from eighteen establishments, of which four do not manufacture wall papers but are merely distributors. One of these distributors handles no domestic papers, importing very high-grade wall papers from Europe.

In spite of the fact that nine of the firms studied employ

designers, and two employ colorists, all of the establishment representatives state that designs are purchased outside the establishment. One firm which employs two designers states that very few of the designs purchased outside are satisfactory for use and that it is necessary to modify the greater number to meet production requirements. Another firm, which employs four designers, purchases some designs outside, but the representative states that in this practice no guarantee exists that other firms have not seen the design. In the majority of cases it was reported that one hundred or more designs are purchased each year. It seems to be the practice for establishment representatives to pay for designs what they consider the designs may be worth to the establishment. One representative reports that as high as \$350 has been paid for a design; the average price, however, would seem to range from \$10 to \$75.

Most producing firms buy designs from design studios. Occasionally they purchase from free-lance designers for the sake of the ideas suggested. As the free-lance designers do not generally meet trade requirements satisfactorily, these designs are modified by the designer at the factory, who is sometimes engaged mainly to do this particular kind of work. With one exception establishment representatives agree that the existence of designers outside the establishments is beneficial to the trade.

In Europe the reputation of an artist is often an influence in marketing papers carrying his designs. The chief concern of the American manufacturer, on the other hand, with a few exceptions, is apparently to prevent his competitors from locating the source of his designs, and he rarely associates the name of the designer with the finished product.

Only five of the wall paper manufacturers interviewed report that they import designs from Europe at present. Eight firms state that before the war from five to twenty-five per cent. of the designs used were purchased in Europe, but that these all had to be modified to conform with American taste. The representative of one of these firms states that when

conditions are more satisfactory he will again import from five to ten per cent. of his designs from Europe on account of the ideas presented.

Three of the jobbers mentioned above consider European designs superior to those produced in America, the fourth states that although European designs are more artistic, they do not appeal in general to the American public unless they are modified to suit American tastes.

Two establishment representatives consider American designs superior to those made in Europe, four consider European designs superior, one believes this applies only to the best European designs; two state that European designs are superior artistically but not commercially, and one states that European designs are not superior, but different in quality. Four representatives venture no opinion.

HOW NEW DESIGNS ARE DEFINED In the wall paper industry usually the head of the firm or the sampling manager takes the place of the styler in the textile industry and determines the character of the designs to be developed by the designers in the establishment or selects those which are purchased outside. In one firm the style is evolved by the sales manager in conjunction with the general force. In each case the artistic quality of the product was found to correspond closely with the character of the person who exercises this responsibility. Wherever fine papers were produced, a man of superior artistic taste was found as the super-designer. Inspiration for new ideas is gained from every conceivable source—woven and printed textiles, jewelry, books, imported papers.

Information regarding the training of persons who define the styles was obtained in the case of eight firms. Except in the case of one individual who was at one time a designer, these persons were developed through practical experience in the business, a few being developed from the sales force. One was formerly a styler in the woolen industry in Austria. He feels that the experience gained in this industry has proved

of value in his work in the wall paper business, as one of his principal successes has been the imitation of fabrics.

WORK OF DESIGNERS The work of designers in the establishments employing but one or two designers is mainly limited to adapting designs purchased outside to meet the technical requirements of production processes as well as the demands of the market. The designer's instinct and effort to produce original designs is consequently given meagre opportunity for expression. In one firm where two designers are employed the one originates and the other adapts styles and designs to meet the demands of the American market and the technical requirements of production. Comparatively few of the designers in the wall paper industry are foreign-born or of foreign descent.

Public designers on the whole eke out a precarious livelihood mainly through orders for which the motives are generally defined and which represent nearly always an adaptation either of period work or some decorative sample.

TRAINING OF DESIGNERS No designers were employed by three of the fourteen firms manufacturing wall paper. Of eleven firms, two employ one colorist each and thirteen designers are employed by the nine remaining establishments. No information was obtained regarding the training of the colorists. Eleven of the designers were trained in commercial practice in the United States and two were trained in England. One of the designers trained in England attended an evening art school and one of the American designers supplemented his commercial experience in the same way. The criticism is made by the designer who attended the evening school in the United States that the instructor lacked technical knowledge.

Information was obtained regarding the training of eight studio heads specializing in wall paper design. Four were trained wholly in the United States; three attending day art schools, and one receiving his training in commercial practice supplemented by evening art school instruction. Two other

designers were trained in day art schools in Europe. One attended evening art schools in the United States before studying in a day art school in Paris, and one attended a day art school in Paris before studying in an evening art school in the United States.

Sixty-two designers are employed in these studios. Fifty-seven were trained wholly in the United States and five in Europe. Only one of the designers trained in the United States attended a day art school, the others were all trained in commercial practice. Of the latter, fifty-one attended evening art schools. Of the five designers trained in Europe two attended day art schools and three were trained entirely in commercial practice.

Records were obtained from four free-lance designers. One of these was trained in commercial practice in the United States and in an evening art school. One was trained in an art school in Paris and later attended evening classes in an art school in the United States. Two others were trained wholly in Europe, one in technical schools in Basel, Munich and Liverpool and in private studios, and the other in commercial practice and in an evening art school.

Although establishment representatives state that the work of a designer employed at a fixed salary becomes monotonous, no definite measures are reported to stimulate the designer to further and constant effort in his work. In one case, however, it was reported that the name of the designer is printed on the selvage of the paper as a recognition of good work and that this unquestionably has acted as a stimulus. Free-lance designers and heads of design studios report that much of their inspiration comes from traveling and visits to museums.

REMUNERATION OF DESIGNERS

Salaries reported by establishment representatives range from \$2,500 per year to \$4,000. The maximum reported is \$5,000 per year. Free-lance designers and studio heads report that they receive from \$45 to \$84 for a design.

**DEMAND FOR
DESIGNERS**

There would seem to be no special demand for more designers at the present time. It is, however, pointed out by the head of one studio that the only way for manufacturers to increase their trade is to offer better designs and in order to do this more highly skilled designers are needed.

**TRAINING
RECOMMENDED BY
ESTABLISHMENT
REPRESENTATIVES**

It is felt that present art schools do not afford entirely satisfactory training for wall paper designers. Besides lacking imagination and originality, school-trained designers are without knowledge as to the requirements of production. A feeling for line and for color are stated as important qualities which should be developed by school work. One manufacturer strongly emphasizes the opinion that a designer should have architectural training and should also take a complete course in interior decoration. Architectural training, he states, is needed to develop in the designer a sense of proportion which is usually sadly lacking, and the study of interior decoration is necessary inasmuch as wall paper, being the background of the entire room effect, must harmonize with the furniture and other accessories.

Teachers in the schools should be practical designers of high ability who understand the requirements of production processes as well as the demands of the market. Nine establishment representatives state that they believe that work illustrative of production processes should be taught in the schools. With but two exceptions representatives state that they believe that students should make designs for the market while in school, although a few of them express a doubt that manufacturers will buy students' designs, inasmuch as they are not likely to meet the requirements of the trade.

While some representatives believe that it might be helpful to the students to spend some time working in commercial establishments as part of their training, it is felt that this would be difficult to carry into effect and that it might per-

haps be more feasible for students to serve an apprenticeship in a designer's studio.

TRAINING
RECOMMENDED BY
DESIGNERS

Three designers employed in establishments expressed views as to the training of wall paper designers. One of these believes that in addition to practical work in a design studio a student should attend an evening school where he can receive instruction in period design. The two others recommend that the student should first receive training in an art school, after which he should enter a successful design studio to learn the technical and commercial side.

All three designers believe that students should make designs for the market if the selling is handled by the schools. It is believed that the teacher should be thoroughly familiar with technical requirements and that familiarity with production processes should be gained in the school.

Opinions as to training of designers were expressed by six heads of design studios. Four of these recommend that students attend a day art school and two that the training be acquired in commercial practice supplemented by evening art school instruction. One believes that students should specialize in design at once in the art schools. The others express the opinion that students should first receive training in a general art course before specializing in work in design. One of the studio heads who recommends that students attend evening school believes that a foundation of art instruction should be laid in the public schools before the student enters commercial practice. Only two studio heads recommend that craft work be included in the art school curriculum. Three believe that students should make designs for the market during their training while three others take the opposite view.

In listing the work that should be emphasized in an art-school training the following are noted: thorough training in free-hand drawing, including drawing from nature, work in color, conventionalization and composition of ornament and

a study of period decoration. The desirable length of a school term is given as from two to four years.

Four free-lance designers expressed opinions as to the desirable training of wall paper designers. Two recommend that students attend day art schools and two recommend that students acquire their school training simultaneously with practical training in a design studio or commercial establishment. The work to be emphasized in the school training is given as follows: free hand drawing from cast, life, and nature, and in particular from plant forms; period work and conventionalization. Three believe that general art instruction should precede specialized work in design. All believe that students should make designs for the market during the latter part of the school course. From three to five years is given as the desirable length of such a course.

MUSEUM COLLECTIONS

One representative considers museum collections useful only in familiarizing designers with fine examples of art embodying the element of beauty in the highest sense. With this exception, the representatives interviewed state that museum collections of historic and modern examples of wall paper would be of much value in forwarding the training of designers for this industry. The opinion is uniformly expressed that no existing museum in New York City fulfills the need of the designers in this field, although one representative states that the collections of the Metropolitan Museum are of much service.

SUMMARY

The wall paper industry at the present time presents two rather distinct situations as to quality. Considered as a whole the average product cannot lay claim to high standards of design or color. On the other hand, a valiant attempt has been made by several leaders in the industry during the last ten years to improve this situation with the result that a few establishments are today placing on the market papers that in appropriateness of design and color rival any heretofore produced and which, furthermore, are

much better adapted to the requirements of the present-day American home than any earlier productions. It is upon the efforts of these manufacturers that the hope of better wall papers in this country would seem largely to rest.

The universal use of wall paper accounts for the fact that the quality of design in much of the manufactured product has deteriorated to the mediocre and the commonplace. Starting as a decoration for homes presided over by people of discriminating and superior taste, wall paper is now regarded as much from the standpoint of simple utility as for its decorative value and is used for all kinds of rooms in which the dwellers represent an almost infinite variety of taste as well as purchasing capacity. With the great variety of conditions that now have to be met it is little wonder that many manufacturers find it possible to market a tremendous amount of material without giving great consideration to artistic quality.

There are many considerations that bear on the present situation. Wall papers are commonly selected with little appreciation of their aesthetic value in the total room effect. We have developed only to a very slight extent what may be called "room consciousness"—very little feeling as to the relation of different objects in a room towards a satisfying whole. The American tendency to put all sorts of pictures, photographic or otherwise, and any kind of knick-knacks on the walls makes the matter of pattern background seem of little consequence and any kind of harmony impossible. Furthermore, we are inclined to play safe in furnishing the home, avoiding strong colors and vigorous forms and are satisfied if the results are respectable rather than interesting. Another fact, marked in recent years, is the tendency of decorators and home makers aiming at particular effects to develop color schemes for the walls of their rooms in connection with the hangings and floor coverings and other decorative material and to use plain wall treatments for this purpose.

Another factor in discouraging the use of really fine wall papers, specially fitted for particular rooms, is the widespread

lack of skill and taste among paper hangers in some of our large cities. Fifty years ago our paper hangers were largely either native Americans or well trained men from France, Germany and England. Today they are as a class deficient in education and in training as craftsmen and are unwilling or unable to handle properly the finer qualities of paper requiring a certain amount of forethought and planning as well as manual dexterity.

In contrast with these tendencies there remains the fact that wall paper represents, at least expense, perhaps, the most important decorative opportunity in the average American home. It presents the richest chance for the introduction of color and from the nature of its position and area may readily contribute more than any other element to the aesthetic quality of a room.

If we are to utilize this material for the making of better rooms, we must develop appreciation of the kind of wall treatment that is most suitable for a particular situation; i. e., some sense of appropriateness in relation to the special conditions presented. This would mean that consideration should be had for a number of things: for the quality of the house, if it is a house, or of the apartment if it is an apartment, in which the rooms are found; for the location, whether the building is in the city with its closely built blocks or in the country with open spaces about; for the character of the room, whether it is a living room, dining room, or sleeping room; for the size, whether it is small or large; for the quality of light, whether it is an inside or outside room, whether it has southern exposure or a north light. All these considerations and more ought in some way to be brought into consciousness if we are to have a consuming public buying wall papers, or arranging other wall treatments, that will make for better and more pleasing rooms.

With a problem of this kind the only forces that can ameliorate the situation are, first, a more discriminating public taste that recognizes a decorative value in fine wall papers; and, second, recognition on the part of the manufacturers

that more artistic and more appropriate designs are worth while as a business investment.

The task of developing public taste must be mainly that of manufacturer. To accomplish this task he must not only offer more artistic designs but designs that are specially appropriate for use in American homes and he must, furthermore, bring the public to a fuller appreciation of the beauty and value of these designs. When these things are brought about we shall have better designs and better wall papers, not before.

The problem of educating the public taste in this field is not an easy one and it is a matter that can be accomplished only by slow degrees. A number of efforts have already been made in this direction and out of the experience gained there seems liable to develop a well-matured system making for greater appreciation of the possibilities of wall paper, both on the part of the public and the salesmen. Among the methods that seem to give promise of considerable value are:

First, direct instruction of the public by means of lectures given by persons with broad artistic training and sensitive appreciation of the qualities and appropriateness of wall paper. Illustrated lectures of this kind delivered before women's clubs and building trade expositions and in department stores can, in the course of several years, reach a large number of persons.

Second, education of the retail salesman, that is to say, the salesman who comes in direct contact with the consumer. Correspondence courses have been started in this field; talks have been given in large centers to groups of salesmen and the idea of a short course lasting perhaps four or five weeks and which would present the decorative possibilities of wall paper, the elements of salesmanship, business English and the nature of the processes used in producing wall paper has been broached.

Third, intelligent advertising on the part of the trade as a whole may be expected to bring considerable educational returns. Such advertising may take the form of printed advertisements in papers and magazines suggesting the value

of the possibilities of wall paper in a complete decorative scheme for a room. It may take the form of pamphlets to be distributed to customers giving suggestive examples of period styles and hints as to the use of papers appropriate for particular rooms. Such pamphlets, intended for the consumer, have the double value of reacting upon the dealer at the same time. Displays of paper arranged in connection with fabrics and suggestive pieces of furniture in skeleton room effects is another form of advertising from which profitable returns are gained.

Fourth, in the development of room consciousness and the appropriate use of wall papers much may be done in the high schools of the country if, instead of working upon designs for room decorations with pencil and brush the emphasis is laid upon appropriate combinations with samples of real materials and with problems involving the consideration of various types of rooms as to function, size and position.

Fifth, annual exhibitions in large cities of the finest products of American manufacturers in centrally located halls readily accessible to the residence districts would serve to better acquaint the public with fine productions in this field.

Sixth, an annual competition for various types of wall paper designs would be of much value in encouraging talent and in giving the public, the designers and the manufacturers an opportunity for comparison of the work of those regularly engaged in wall paper design with that of artists bringing to it a point of view derived from practice in other fields. Such a competition to be effective should be widely advertised, should be held under the auspices of some important organization; should be judged by a jury representing various kinds of knowledge and experience requisite in this connection and should offer prizes large enough to be an inducement to the various types of designers.*

The matter of training designers for the wall paper industry

* This suggestion has been so warmly received by one wall paper manufacturer that he has offered a prize of one thousand dollars for the best design exhibited at such a competition. He has agreed to continue this gift annually for a number of years.

is a matter of secondary importance. Many established art schools are well prepared to give the instruction needed in drawing, color, design and interior decoration that is needed for such designers while training in commercial studios and through evening schools also offers an effective method for their development. The all-important point is to raise the standards of the public and the manufacturer so that better designs may be appreciated and better designs may be produced. When this is accomplished a more recognized position for the designer will be secured and the industry will afford larger opportunities for designers of ability and talent.

CERAMICS

The range of commercial ceramic products runs all the way from the once-fired, unglazed clay ware with opaque porous body, hardened at a comparatively low heat, to true porcelain made from fine kaolin, quartz and feldspar, fired at an intense heat and resulting in a translucent product. True porcelain is not made in America except for chemical and electrical purposes. Our decorated wares are double-fired products intermediate between the above in hardness and translucence. Earthenware like faience and majolica has a porous body covered with either clear or colored glaze. The body is fired first to the required strength and density and is then covered by the glaze which in turn is fired but to a lower degree of temperature. When more intense fires are used, with some modifications in proportion of materials, the ware becomes stronger and more dense, reaching the condition known as vitreous. Carried a step further in temperature and in refinement of materials the ware acquires such a degree of vitrification as to produce translucence. This is the product known in America as china and used for table ware. It is with this product that the present study is concerned.

Decorative effects in pottery may be produced by the form of the object, by modeling, or by glazes. Glaze decoration may be achieved through solid colors or by polychrome ornament. The latter effect may be obtained either by over-glaze, as is most common, or under-glaze decoration. Over-glaze decoration is made with vitrifiable colors which are fixed at temperatures below that at which the foundation glaze is matured and requires a special firing for completion of the ware. Under-glaze decoration is limited to such colors as will withstand the heat of the glost kiln. Such colors, while limited in number, are more durable than those used over the glaze and are commonly used in the decoration of hotel china.

Table china is decorated in large part by the decalcomania transfer process invented by a Frenchman, Massé, about

fifty years ago. In this process the design is printed upon special paper with ceramic colors instead of ink and is then transferred to the ware by pressure with the fingers. Transfers are produced by two processes, one by printing from an engraved copper plate and the other by lithography. The copper-plate method is used when only one color is desired, or at the most two, and is largely confined to printing on biscuit. Lithography is the usual method employed in overglaze decoration. Lines and single color bands on circular pieces are made by placing the piece on a whirler and applying colors with a brush. A considerable amount of expensive table china is decorated in whole or part by hand. Two of the china concerns studied maintain their own lithograph plants for the production of decalcomania. The others either have their designs put into lithographic form by outside establishments or depend upon the purchase of decalcomania from importers or studios.

NATURE OF THE DEMAND FOR DESIGNS

The demand for close imitations of French and English china results in these products furnishing the main supply of motives for American designs. The demand for new designs

comes to the establishments through various sources: through salesmen, through jobbers, through interior decorators or through buyers for department stores. In addition to meeting the demands brought to the firms through these sources, many firms make a practice of adding a few new patterns every year on their own initiative. Most of the hotel ware is special-order work. When the demand is brought to the firm through salesmen they usually send in examples of the "best sellers" from all over the country, and these examples of chinaware largely determine the style to be followed in preparing new designs.

WHERE DESIGNS ARE OBTAINED

The value of foreign decorated china imported into the United States in 1920 as given by government authorities was \$6,262,249, on the basis of

import figures. This ware is said to sell in the American market for approximately three times the value given in the government tables. This would mean a displacement value of \$18,786,747. Domestic production during the same year including both white and decorated ware was valued at \$11,341,593.

There is usually a modeler in the production establishment who defines the form of new pieces, giving special attention to balance and proportion. In this respect French china has long been preeminent, and American designs have to a large extent copied these models. Since the establishment of a factory in Limoges by Charles Edwin Haviland, the designs of French china have to a very large extent catered to the taste of the American market. The character of the dinner sets made in Limoges for this country, with their various sizes of plates, are quite different from the ware made for the French market.

Ten firms manufacturing chinaware and three which specialize in the production of ceramic decalcomania were surveyed. Two of the chinaware firms employ no designers for surface decoration and depend entirely upon the purchase of decalcomania for their designs. Nine designers are employed in the eight remaining chinaware establishments. Two firms depend entirely upon their own designers to produce designs, while two firms report that designs are purchased from free-lance designers and six that decalcomania sheets are purchased from outside sources. Twenty-five designers are employed in the three decalcomania establishments studied, but in the case of two establishments the production of ceramic designs forms only a portion of the work of these designers.

A large part of the decalcomania used in America before the war was imported from Europe, principally from Germany, England and France, and much still comes from these sources. One representative states that practically all of the decalcomania sheets used in his establishment are purchased from English companies. A few expert designers in Paris are said to furnish a large share of the original motives for decal-

comania production. Decalcomania made abroad is produced in specialized lithographic establishments in which a force of designers is employed who develop compositions largely inspired by the work of the above-mentioned artists.

Records were obtained from three decalcomania establishments. The representatives of these concerns state that they purchase a considerable proportion of their designs from outside designers. It is stated that the ordinary price paid for designs by these establishments is \$10 but that the prices range from \$5 to \$50 and even \$100. Most of these designs are said to come from European sources, not because the representatives consider them superior, but because European designs are still considered superior by the trade. Seven representatives of firms manufacturing chinaware expressed the conviction that the system of purchasing decalcomania designs satisfactorily meets the needs of their trade.

HOW NEW DESIGNS ARE DEFINED

Usually a member of the chinaware producing firm, either alone or in conjunction with the designer or sales manager, defines the general character of new designs. In one firm the designer himself evolves the style to be followed. Study of the import trade and contacts with museums and books are said to be sources of inspiration for new designs. In each instance it was reported that the person or persons who define the style were developed in the trade without art-school experience.

In the case of decalcomania manufacturers, the demand for new designs usually comes from the manufacturer, who, to a large extent, obtains his suggestions from European designs. Prospective buyers sometimes send in samples of ware, photographs, magazine clippings, or pieces of textile fabrics containing motives to be used in the designs.

In some instances the finished design is submitted by the salesman to his customers before it is accepted by the decorating department. When accepted it is later used as a guide in the work of transfer and it goes to the plate maker who may be either an engraver or a lithographer.

TRAINING OF
DESIGNERS

It was found that the head modelers in the establishments studied had all been developed through practical experience. In a number of instances attendance upon evening art classes was reported. Of the nine decorative designers employed by eight of the manufacturing firms six were trained wholly in the United States and three in Europe. Of those trained in the United States two attended day art schools, two were trained in commercial practice, and two were trained in commercial practice supplemented by study in evening art classes. Of those trained in Europe two attended day and one attended an evening art school while serving an apprenticeship in engraving.

The establishment representatives state that no beginners direct from art school are employed. It is reported that this has been tried in one or two instances but without success because of the student's lack of practical knowledge and the impatience of the experienced designer. In one establishment beginners direct from art schools are employed in the craft department and designers are chosen from among those workers who have served a number of years in the trade.

The majority of the establishment representatives report that the work of designers employed regularly tends to improve from year to year. Current art literature, books and advertising material are furnished by the establishments to inspire designers. One representative states that the continued requests from customers for better designs is sufficient to stimulate the designer to further and constant development.

The three decalcomania establishments studied employ a total of twenty-five designers, twelve of whom were trained in the United States and thirteen in Europe. Most of the decalcomania designers are either foreign born or sons of foreign born parents. As stated before only a portion of the work of the designers in two of these establishments is concerned with ceramic design.

REMUNERATION OF DESIGNERS

The salaries of craft workers range from \$7 to \$15 a week. The salaries of experienced designers are said to range from \$1,400 to \$5,000 a year.

There would seem to be no general scheme of salary progression in any of the establishments studied.

It is reported that designers employed in decalcomania establishments receive from \$2,000 to \$3,500 or more a year.

DEMAND FOR DESIGNERS

In only one case is the opinion expressed that the scope of the establishment would be expanded if a larger supply of high-grade designers

were available. One representative states, however, that the problem of finding competent designers is a serious one.

The representatives of the three decalcomania establishments say that the business of their firms would undoubtedly be expanded if a larger supply of high-grade designers were available.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

Seven establishment representatives expressed views as to the training of designers. These representatives state that the average designer is impractical, unimaginative and uninventive as well as lacking in technical skill

and originality. Four representatives believe that the schools should be able to supply the training needed for ceramic designers. Three representatives state that the designer should be trained in the industry and in the school, the two working together. Opinions were expressed that if schools should undertake such training emphasis should be placed upon a knowledge of historic ornament and period styles and a study of color and decorative design. In addition to this background of artistic culture the school training should develop the requisite technical skill in drawing as well as ability to adapt designs to dinner ware planned for use in specific settings.

Seven representatives state that students should perform commercial work for sale while in school in order to familiar-

ize themselves with the conditions of commercial competition.

While it is agreed that it would be beneficial for the student to put in a certain amount of time at regular intervals in the design department of a commercial establishment as part of his training, the opinion was expressed that such a plan would be difficult to arrange on account of the expense involved and the likelihood that such students would go elsewhere when their training was completed if they were offered higher salaries.

One representative states that it is difficult to train Americans for the needs of this industry and that in his entire experience he has succeeded in training but one American boy who can hold his own with foreign craftsmen. He attributes this failure to the American's desire for rapid promotion and lack of respect for authority. It is said that girls do not stay in the work long enough to acquire the necessary skill.

The establishment representatives agree that it is necessary for them to assume considerable responsibility for the designer's further training after he has been admitted to the design department.

All of the representatives of china establishments feel that evening classes are an important factor in the training of designers, particularly those already employed in the trade. The three representatives of decalcomania establishments feel that evening classes are helpful in giving instruction in drawing but that it is impossible to give satisfactory instruction in color, which is of primary importance in ceramic lithography in such classes.

TRAINING
RECOMMENDED BY
DESIGNERS

Nine designers serving in chinaware establishments were interviewed. Of these, seven believe that the designer for this industry can best be trained in evening art classes, while employed in a pottery; one favors a part-time cooperative system of training, and one states that the student should spend two years in day school and follow this by practical work in an establishment supplemented by evening art-school instruction.

It is felt that the subjects which should receive emphasis in the school instruction in order of their importance are: drawing from objects, casts, nature and life; art appreciation and history of art; the study of color, decorative design, modeling, form. One designer feels that speed should be emphasized throughout. Another feels that much benefit would be derived from making accurate copies of good designs which have been used successfully in china decoration.

Four designers believe that students should make designs for the market during the period of school training.

MUSEUM COLLECTIONS

Seven representatives of china establishments and three representatives of decalcomania establishments expressed opinions as to the value of museum collections. Seven of these express the opinion that collections containing examples of ceramic products arranged historically are most valuable in the training and development of designers; one states that a library would do just as well; two state that historic collections are too far removed from present-day needs to be of great value even though they may be of interest to designers and might furnish considerable inspiration for new designs. The representatives in favor of museum collections state that reproductions as well as originals should be included. Six believe that present-day artistic products should be shown, while three do not feel that it would be wise to do this as such a practice would cater to the exploitation of fads and fancies and the introduction of unworthy examples of modern craftsmanship. It is stated that while no existing museum completely fulfills the need of the industry, the collections of the Metropolitan Museum are of great value.

Ten representatives express the conviction that museums should be open in the evenings.

SUMMARY

It must be recognized when approaching the subject of decoration of table china that opportunities for artistic expression under the present generally accepted conventions are limited. The first ideal of the American housewife toward

her table furnishings is naturally that of cleanliness. The natural expression of this ideal is found in white table linen and white china. If the household be one of some pretension where elegance is sought, this background of white in the tableware may be relieved by a meagre element of color, generally in the form of a narrow band of ornament upon the plate rims.

This is very generally the ultimate limit of decoration considered acceptable in table china in most American homes and its presence represents as much an indication of expense as a desire for artistic expression. Only in a few households of exceptional taste are services found of beautiful sets of old-world china in which decorative color has been given generous expression.

The artistic limitations of our present conventions are obvious and it would seem to be true that little scope for design will be afforded in our table china until we develop greater love for color as a people and the courage to deal with our table furnishings as an opportunity for the creation of color harmonies comparable to those sought for in other phases of interior decoration. It is only in this way that our table china can become a rich field for the designer and an element of decorative effect in our homes.

It is true that in our summer homes we are beginning to indulge ourselves more in this element of color in the tableware and to make use of the earthenwares of Spain and England, the majolica of Italy, and the peasant potteries of France, as well as the products of China and Japan. This tendency will perhaps in time make itself felt in the matter of our regular tableware, and the time may come when we are no longer afraid of using plates on our tables making generous and appropriate use of color.

The fact that beautiful and colorful, although expensive table china can be made and marketed in this country, is demonstrated by the products and standing of one or two firms. Whether even a modified wealth of color and beauty of design would find a demand and appreciation in the larger

THESE IF ANY ADVANTAGES WERE A QUESTION NOT EASY TO ANSWER. THAT STAFFORD AT FIRST THOUGHT THE WAR HAD INDICATED THE POSSIBILITY OF UTILIZING THESE THINGS IN SOMEWAY SOMEWHERE THAT WOULD LEAD TO SOMEHOW MAKING THEM IN THIS FIELD INSTEAD OF THERE FOLLOWING THE CONVENTIONAL ROUTE. THAT SUCH PROSPECTS MIGHT NOT HAVE BEEN IN THE MINDS OF THE MANUFACTURERS WHO WOULD BEING ASSUMED THAT IN THE CASE A PRODUCTION THAT MUST BE IN THE FIELD THAT THEY IN DEMANDS WOULD.

ART POTTERY

THE FIELD OF ART POTTERY HAS NEVER REACHED A LARGE DEVELOPMENT IN THE UNITED STATES. BUT A FEW COMMERCIAL FIRMS MAKE A SPECIALTY OF SUCH WORK WHICH INCLUDES VASES, LAMP BASES, JARRETTES, SUGAR BOWLS, ETC. TWO WELLS KNOWN PRODUCING PLANTS MOST IMPORTANT WITH ART POTTERY—THE ROCKWOOD POTTERY AT CINCINNATI AND THE H. S. NICHOLS NEWFIELD MEMORIAL COLLEGE FOR WOMEN AT NEW BRIDGES—HAVE BEEN WORKING IN THIS FIELD FOR A NUMBER OF YEARS WITH VERY SATISFACTORY RESULTS. THERE ARE BESIDES A NUMBER OF CRAFT POTTERIES IN THE UNITED STATES PRODUCING A SMALL PRODUCTION BUT IN SOME INSTANCES, ONE OF VERY INTERESTING AND BEAUTIFUL QUALITY.

DESIGN IN ART POTTERY IS NOT SO RESTRICTED AS IT IS IN THE FIELD OF TABLE CHINA. ALL-OVER COLORED GLAZES ARE MUCH USED, AS ARE ALSO MODELING AND INCISED-PATTERN EFFECTS. THE MATTER OF COLOR EFFECTS OBTAINABLE WITH GLAZES IS RELATIVELY MUCH MORE IMPORTANT THAN IN THE CASE OF TABLE CHINA AND SOME OF THE MOST SUCCESSFUL WORK RELIES ENTIRELY FOR ITS APPEAL UPON FORM AND GLAZE.

THE FIELD IS SO SMALL THAT NO SPECIAL COMMENTS WOULD SEEM NECESSARY. IT IS TO BE NOTED, HOWEVER, THAT DURING THE LAST FEW YEARS VERY BEAUTIFUL ALL-OVER COLOR EFFECTS HAVE BEEN DEVELOPED BOTH IN COMMERCIAL POTTERIES AND IN SOME OF THE CRAFT POTTERIES THAT HAVE DONE MUCH TO BRING THIS MATERIAL FORWARD AS A DECORATIVE ELEMENT FOR AMERICAN HOMES.

PRINTING

The field occupied by the printing arts in modern life is one of vast extent. Not only is printing with type employed to convey ideas in never ending volume through books, magazines, newspapers and numberless other ways, but graphic advertising in countless forms has become one of the striking features of modern life. Illustration, whether concerned with imaginative work or photographic reproduction, represents an important field. Printing also enters the domain of the fine arts as in the case of etching, mezzotint and auto-lithography. In all of these fields the element of composition and design appears. The present study, however, is restricted to a study of design as related to the printed page and to graphic advertising.

The processes of printing are numerous; type printing, lithography, offset printing, half-tone or process plate printing, rotogravure, line or zinc plate printing, wood block printing and photogravure are all methods in common use. It is not, however, with any discussion of the processes that this study is concerned, but with the conditions under which the element of design is brought to bear upon the material which is to be reproduced by these processes.

In a broad way the element of design may be said to enter the field of printing and graphic advertising through two channels, one represented by the compositor or layout man who deals with typographical design including ornament, and the other by the commercial artist, so called, who deals with all kinds of pictorial and decorative compositions, whether in line or mass, which are to be printed by any of the reproductive processes. The line between these groups is not by any means a rigid one as individuals sometimes handle all aspects of design and persons chiefly concerned with one field often extend their activities into the other. The tendency, however, is to specialize. An artist who has acquired a reputation for a certain kind of work usually confines his attention to work

in one medium and of a distinct technique. Many well-known illustrators who have an established "style" preserve their individual technique in work for advertising purposes.

The field of the commercial artist extends from work of the highest order of imagination and perfection of technique to work that is little more than mechanical. Under this latter head may be classed work of the catalogue type consisting mainly of photograph retouching and dealing with representations of machinery, shoes, automobiles, and other objects requiring great accuracy of delineation.

Associated with the mechanical work of reproduction are various other men who need more or less artistic talent, such as lithographers, plate retouchers and Ben Day artists.

WHERE DESIGNS ARE OBTAINED

It should be borne in mind that the printing, lithographic and photo-engraving establishments are not primarily under pressure to initiate ideas. Their first function is to manufacture. Ideas are brought to them as a general thing by the advertiser or the advertising agency. The printer commonly plays the role not of the producer of designs but that of the reproducer.

Large printing establishments, however, often employ a staff of artists. The smaller establishments usually depend entirely upon the independent artist or studio for all designs for advertising work.

Sixteen of the thirty-one printing establishments studied employ no designers. These firms either print merely what is sent to them by the publishers or purchase their designs from outside sources. Lists are kept of free-lance artists and artists employed in studios, with examples or descriptions of their work, and when a certain kind of design is needed the appropriate free-lance artist or service studio is selected to do the work. The number of designs used in a year by each of these firms ranges from 100 to 400.

Fifteen firms dealing exclusively with printing employ designers, the number ranging from one, in four establishments, to twenty-three in one establishment.

Five or six artists would seem to be the average size of designing staffs. Only two of the firms, one employing five designers and the other three, depend entirely upon their own designing staffs for the production of new designs. One firm, which employs two artist designers, obtains all of its designs from outside sources. Representatives of the remaining twelve firms which employ designers all report that some designs are produced outside the establishment, the number varying from a small percentage to a large proportion of the output in the case of several concerns. One firm states that about \$50,000 a year is spent for work purchased from free-lance designers and \$30,000 a year from service studios. It is stated that the prices paid for the designs vary according to the nature of the design and the reputation of the artist. Figures reported range from \$10 to \$1,000 a design, the average prices being from \$25 to \$100.

Lithographic establishments reproduce the drawings or designs submitted by the advertiser or advertising agency. They also develop a considerable amount of designing in their own art departments for posters, broadsides, etc., direct for the advertiser, but the great bulk of work comes to these concerns mainly through designs, drawings and illustrations made by free-lance artists or service studios for the individual or agency contracting for the advertising. Twenty of the twenty-six lithographic establishments studied employ designers. These number a total of 170. The entire twenty-six establishments employ 484 lithographers.

Five of the twenty-six lithographic firms depend upon their own designers for the development of new designs. The remaining firms report that designs are purchased outside. Two firms depend entirely upon outside designers for new designs. Figures as to the number of designs purchased outside range from 50 to 100, or 200 to 1,200 in the case of one firm. The prices paid for designs have a very wide range, i. e., from an average of \$10 to \$250 to as high as \$3,000 for a design by a popular artist. It is stated that the designs do not generally need to be modified but are usually satisfactory for use.

Oftentimes, however, the outside artist has been commissioned to develop only certain elements of a design, which is then finished in the lithographic establishment.

Europe exercises very little influence upon the character of lithographic or other advertising design in this country, largely because of what is considered to be the unsuitability of foreign designs to American advertising needs.

The main work performed by the photo-engraving houses is that of making plates for the publishers or printers who furnish designs or drawings. A very small amount of designing as a rule is performed in these establishments, and only a few designers are employed. Their work is more or less of a mechanical character, consisting mainly in developing layouts of photographic material for advertisements in magazines, newspapers, etc. On the other hand, certain large houses identified with photo-engraving work include printing plants in their organization and employ large numbers of artists representing much diversity of talent.

Sixteen of the seventeen photo-engraving establishments studied, including four concerns of the type just noted, employ designers the number of which totals 289. Four representatives report that no designs are purchased from outside sources. Thirteen state that a proportion ranging from a few to the entire number used is purchased outside the establishment. The number of designs purchased annually ranges from 50 to 200.

Trade journals and newspapers maintain a staff of artists in connection with their advertising departments which prepare the layouts for the simpler advertisements which involve drawings.

By far the largest number of designs for important advertising contracts, regardless of whether these are to appear in magazines, newspapers, catalogues, pamphlets, poster or other forms, are obtained by the printing and other producing establishments from free-lance artists or service studios, or are turned over to the establishments by advertising agencies.

The agency has developed to a commanding position in the

whole field of advertising. The large agencies represent organizations of a very complete type involving provisions for planning, research, accounting and art direction. They not only develop the general plan for an advertising campaign and the nature of the advertisement but place the same in magazines, newspapers or other vehicles.

At one time the advertising agencies maintained large art departments, but in most cases this staff has been reduced to a few men to make layouts and designs and to a few to make last-moment changes in a design or to regroup advertisements. The bulk of the art work for the agencies is now handled by independent artists or the art service organizations.

Twenty-seven advertising agencies were studied by members of the field staff. All except one of these agencies were found to employ designers. These totaled 276, five being women.

In an advertising agency the art director serves as the connecting link between the business organization in which the general scheme of an advertisement is planned and the artist who is selected to develop the design. Knowing the personnel represented in the service studios and also the special talents of a large number of free-lance artists, his experience and judgment allows him to select the artist best qualified to carry out a particular design.

Each designer is liable to possess a special technique which is suited to a particular line of illustration and this wide field furnishes almost unlimited specialists from whom to select when a new design is to be carried out. Moreover, it is stated that the output of men in an agency staff is liable to become stereotyped, whereas the wide range of selection possible outside of the establishments offers a fresh and different viewpoint for each design or illustration.

Certain large advertisers maintain an advertising manager in their own organizations who attends to the development of designs for his particular firm. Large department stores and many other concerns putting out much advertising often employ artists in the establishments to develop designs for

their own service, either in newspaper or direct by mail advertising.

The service studio represents an organization of artists of various special talents. Such an organization may represent anything from one or two artists associated together for commercial work, to a highly developed business, employing a large staff of artists and other workers. The business department of such organizations takes care of soliciting, interviewing and collecting accounts and allows the artist to concentrate on the creative side of his work. A large part of the work of the service studio is brought to it by advertising agencies.

Service studios sometimes specialize in one branch of work, such as men's and women's clothing. These studios are of the type that make the drawings for mail order catalogues. The portrayal of men's and women's fashions requires such highly specialized treatment and technique that only those who have concentrated upon such work for a long period meet the demands. The degree of this specialization is illustrated in the matter of collar advertisements. Only a few artists in New York City are considered satisfactory for such work. Some of these men draw nothing but collars, and the rendering of these articles for shape, fit and general appearance is a very difficult thing to accomplish in a manner that will satisfy the advertiser. Another example is the case of drawings for shoes.

Seventeen service studios were visited, six of which specialize in drawings for mail order catalogues. All of these studios employed designers. A total of 306 men and 18 women designers were engaged in these establishments.

In the field of commercial art, the free-lance artist has reached a position unique among designers. Here, where personality, special talent and imaginative quality count for so much, free-lance artists of ability have been able to command a position practically independent of any organization, where their work is eagerly sought for by the advertising agencies and the large advertisers.

On the other hand, it should be kept in mind that free-lance

artists include practically all grades of ability—the situation demanding not only the services of men of the highest order of talent but of others fitted only for very ordinary work or some narrow specialty.

If the independent artist of strong artistic talent has also business ability to deal with customers he is liable to make larger returns than if he were employed in a studio. In the case of important work the name of the artist producing the design is usually printed on the design as it is recognized that this adds additional advertising value to the illustration.

Printing establishments and advertising agencies often give office space to free-lance designers for the convenience of having them on hand for immediate service.

In 1920 the Guild of Free-Lance Artists was formed in New York City. The object of the guild is to enable the individual artist through cooperative action to be brought in touch with possible customers in a broader way than is possible for him operating wholly as an individual.

In the office maintained by the guild are screens upon which are displayed examples of the work of members. These give a clear idea to an intending advertiser of the special qualities of the different artists and allow the selection of those that seem most adapted to his particular needs or tastes.

Folders containing proofs of work of members are kept on hand and sent on request to advertisers in any part of the country who cannot conveniently visit the office and who desire to be brought in touch with artists for some particular project. A corresponding secretary attends to inquiries by mail as to artists most suited for particular lines of work and through the list of addresses kept on file members can be quickly reached in answer to any demand that comes to the office.

HOW NEW DESIGNS ARE DEFINED

In some cases a client has a very definite idea of the manner in which he wishes an idea put forth, in which case his specifications are followed quite closely. At other times he has in mind only the concep-

tion of the end to be reached and the person who defines the design must interpret the problem according to his conception of what is most suitable and appropriate.

When the work is purely typographic, this matter of design is commonly settled between the customer and the office representative with the aid of a layout man in the case of large printing establishments, and with the head of the composing room in the smaller firms. Where graphic advertising is concerned a rough sketch or layout is first made indicating the arrangement of essential features. With the larger firms this may be developed by the layout man or the designer in conference with the salesman or client in the case of producing establishments. If the firm depends upon free-lance artists for its designs an artist may be called in who is deemed best fitted to execute this particular kind of work and the problem presented to him. A sketch made by this artist is usually submitted for approval before it is completed and a finished drawing made.

In the case of advertising agencies and service studios, the layout is commonly developed by the art director and some member of the staff. Many advertising agencies employ artists called creative men who make rather complete sketches of what is wanted, keeping in mind in important cases the technique of the artist who is to render the design eventually.

Many designs embodying carefully thought out ideas for an advertising campaign are also developed by advertising agencies and others for submission to advertisers in the hope that their interest may be developed and a contract gained.

In some cases the scheme of the design is clearly defined when presented to the artist. At other times the idea is only roughly indicated and the development of the design is left almost entirely to the designer with restrictions as to size and colors.

After the general layout has been brought to the designer the finished design is usually evolved through a series of sketches which are then submitted to the client or other

person and the one selected is finished for reproduction. The process in detail is sometimes as follows: keeping in mind the process by which the design is to be reproduced, several sketches indicating the finished appearance of the project are made. They are then submitted to the advertiser. When one is accepted, the design is enlarged and finished with great care according to the requirements of the particular process to be used in the printing.

This design must conform with the copy and general layout. It must have commercial or advertising punch. It must tell a story that will sell goods. It must make an appeal to the eye that will attract attention to the story set forth.

Much of this work means little but the expression of a selling idea in terms of realistic portrayal of the article to be sold. A further development is the type where a pleasing drawing or detail is relied upon to catch the eye and carry the reading matter. Then comes "prestige" or "quality" advertising where no mention is made of prices or lists but where the effort is to associate and identify the trade name with an air of distinction and refinement. In exceptional cases the opportunity is presented to subordinate to a minimum all merchandising references and to develop the design with little other consideration than that of beauty and artistic appeal.

TRAINING OF DESIGNERS

Personal records were obtained from 200 designers. Of these, thirty-two were employed in printing establishments, twenty-two in lithographic establishments, fifty-two in photo-engraving establishments while sixty-four were connected with service studios or advertising agencies and thirty were free-lance artists. Of these, a total of 177 were trained in the United States, fourteen in Europe, and nine in the United States and Europe or Canada. Of the designers trained in the United States sixty-four received an education in day art schools, eighty-one were trained in commercial practice supplemented by evening art school instruction, and thirty-two were trained entirely in commercial practice. Of those trained in Europe ten atten-

ded day art schools and four were trained in commercial practice supplemented by evening art school work.

It should be noted that the designers in producing establishments from whom records were obtained were mainly of the superior type. Those with little education engaged in lower grade work often regarded the interviewer's questions with suspicion and refused information.

In the case of lithographic and photo-engraving establishments, advertising agencies and studios, a considerable majority report that they employ beginners direct from art schools. In a number of cases it is stated that this policy has often not worked out very successfully, principally because of the student's lack of knowledge of the requirements of reproduction and also because of failure to grasp the quality needed for successful advertising matter.

REMUNERATION OF DESIGNERS

The salaries paid to designers employed in establishments and in studios as reported range from a minimum of \$750 to \$10,000 and

above in exceptional cases. The free-lance artist is paid according to the design. In the case of artists of great reputation the remuneration reaches high figures.

DEMAND FOR DESIGNERS

In the summer of 1920 when most of the investigations of the printing trade were conducted the demand for artists of the highest talent and

training was much greater than the supply. Successful and well-known designers were crowded with work and were obliged to refuse many commissions. One of the real concerns of the advertising agencies at this time was the difficulty experienced in obtaining sufficient high-grade talent for the volume of their business.

TRAINING RECOMMENDED BY ESTABLISHMENT REPRESENTATIVES

A majority of establishment representatives expressed the conviction that the most satisfactory and effective foundation training in preparation for work in the commercial art field can be obtained through day art

schools, provided an understanding of the fundamental requirements of advertising design is imparted in these schools. In the case of the art directors of advertising agencies this view is expressed by some eighty-five per cent. of those interviewed. In a number of cases the opinion was stated that working contact with a commercial establishment should be had by the students in the last year of their school work.

A majority of representatives state that the situation demands that employers admit graduates of art schools to the design rooms and assume responsibility for their further development, but along with recognition of this responsibility, is coupled the feeling that the art schools should do more in equipping their graduates with an understanding of the practical requirements of work under commercial conditions. As a general thing, employers are willing to encourage young people to enter the field of commercial art but few managers feel that they can spare the time required to train inexperienced designers in this work.

A majority of the representatives of printing and photo-engraving establishments state that it is impracticable to have students spend a certain amount of time at regular intervals in the design room of a commercial establishment as part of their training. In the case of lithographic establishments, however, two-thirds of the representatives express themselves as of the opinion that such an arrangement would be very desirable and that it is possible that such a plan could be worked out upon the part of the establishments.

Desirable personal qualities in a designer most emphasized are fertility of imagination and sensitiveness to new ideas. The equipment that should be gained through training indicated by the larger number of replies in order of emphasis is as follows: facility in drawing in various media, knowledge of technical requirements of production, understanding of advertising point of view, feeling for color, ability in composition and design, a background of artistic culture and skill in rendering.

Particular points that are often emphasized are as follows:

The designer should be taught to create and visualize at the same time. There should be a great deal of training in drawing from life in different poses and this should not be merely faithful copy of the human figure but practice in rapid sketching, first from the model and then from memory with a definite idea or application in mind. In working from the model a student should be trained to draw the figure, not merely to copy it.

It is stated that the successful commercial designer must possess ability to grasp and visualize ideas from an advertising standpoint and to present these ideas forcefully and graphically with the proper sense of balance and composition, also in colors which will be most effective and reproduce to advantage. The drawing must be so well executed that it will easily meet the commercial limitations of production.

In addition to the lack of understanding of commercial requirements the principal weaknesses in the training and equipment of designers which are mentioned by establishment representatives are the following: lack of imagination and inventiveness, lack of breadth of culture and general art appreciation as well as lack of knowledge of the fundamentals of historic ornament. It is also stated that many commercial artists are poor figure draftsmen.

With but few exceptions it is felt that evening classes represent a very helpful element in the training of designers. Several express the belief that if these classes are taught by practical and able teachers the work of the designer should improve in draftsmanship and design as well as in understanding of the technical requirements of production. It is reported that some of the best commercial designers of the day have been trained in evening classes.

TRAINING
RECOMMENDED BY
DESIGNERS

A total of 194 designers expressed opinions as to the most desirable training for designers in the various branches of the printing industry. Of these thirty were free-lance artists, sixty were artists connected with advertising agencies or

service studios, and 104 were designers in producing establishments.

One hundred thirty-seven believe that the designer should receive his training first in an art school and later make contact with a producing establishment or studio. Forty-three believe that it would be desirable if a combination of commercial experience and art school training could be arranged. Fourteen recommend that a student should first acquire a commercial experience and then make some arrangement whereby he may obtain training in art.

Opinions as to the length of time which should be spent in an art school range from two to five years with a large majority indicating three years.

Important subject matter of instruction in the order of emphasis is given as follows: drawing and rendering in various media, knowledge of requirements of reproduction processes, color and painting, design and ornament, composition, lettering, sketching, advertising principles, type faces, history of art, art appreciation. Three designers express the conviction that much benefit is gained through copying the work of successful commercial artists.

In the case of mail order studio heads the feeling is expressed that the school alone cannot equip for work in this field but that actual experience in a studio is necessary.

Several designers state the belief that students without ability should not be allowed to continue their work in an art school.

The criticism of their art school course most commonly noted by designers was the small attention paid to the practical applications of their work. Several designers, however, state that the training received gave them a foundation in drawing and the principles of design and created an appreciation of beautiful work in art.

In addition to the records obtained from personal interviews, extremely interesting letters were received by correspondence from eighty-seven art directors of advertising agencies and from 102 prominent free-lance artists.

The letters received contain in many cases opinions expressed with much candor and suggestions of considerable merit showing the writer's idea as to desirable elements in the course of study and the relative emphasis to be placed on them. These letters are considered so valuable and suggestive that changes in the program have been made and will be found pointed out in addition to this report.

Forty-five of the letters from art directors state the conviction that the art school is the place where fundamental training should be obtained for workers in the commercial art field. The elements that are emphasized in such training in order of importance are: drawing, composition and design.

Thirty-eight of the replies state the opinion that such art school training should involve instruction in advertising composition, theory of advertising and the requirements of the reproductive processes. Knowledge of type faces and lettering is also noted as important.

Seventy-five of the letters received from free-lance artists emphasize the conviction that art schools provide the best opportunity for the fundamental training required for the commercial art field. They emphasize the basic importance of drawing and painting, composition and design, breadth of art culture, gained by study of works of art of all periods and countries, and stimulation of the imagination through problems in composition. Fifty-five of these letters emphasize the opinion that the schools should give instruction in advertising composition and a knowledge of the requirements of reproductive processes. Several state that the latter should require only a short amount of time. Nine of these artists expressed the opinion that apprenticeship in service studio or engraving house with attendance upon night classes offers a preferable method of training.

Forty-eight of the free-lance artists indicate the source of their training. With four or five exceptions all received training in art schools, nearly half having studied in the Art Students League and the second highest number in the Chicago Art Institute.

MUSEUM
COLLECTIONS

With few exceptions establishments and studio representatives expressed the belief that collections of artistic printing arranged historically would be of great value to the designer, illustrator, buyer and establishment. At the same time the opinion is generally expressed that in this field the library is liable to offer even greater practical help than the museum.

The feeling is expressed that the specimens should be originals wherever possible but that good photographic reproductions should be included to make collections more complete. All of the representatives feel that museums and libraries should provide for the display of present-day examples of the printing art.

The majority feel that museums should be open in the evening.

SUMMARY

The printing arts have become essential to the existence of modern democracy and their great development in this country represents a very significant element in American life. Nowhere in the world is the printed page so much sought for as in this country. Not only is this true, but it would seem safe to say that in the development of artistic type and in the arrangement of printed matter several of our foremost printers have reached a point that is unexcelled elsewhere.

In considering the training needed for this field of work it is necessary to review present conditions. The day of the printer who planned his page and selected and set his type is gone by. Today no one person is fully responsible for the finished result. Division of labor and the machine rule the situation in the modern printing establishment. The type-casting machine is the great feature in the new order. The character of type available for printing is largely governed by the dies furnished with these machines by the two great manufacturing companies and by the case type made by the chief foundry concern. Fortunately in all three of these

establishments the management has placed persons in charge of type design who are exercising an admirable influence in developing type of fine quality.

The layout man in the modern establishment has taken the place of the old printer in the matter of selection of type and page arrangement. His education as well as that of the head compositor is generally gained in practical experience. A few are being trained in printing trade schools in which some attention is given to design and composition. Many have received help from evening schools and many more would obtain valuable assistance from this source were classes in the printing arts taught by competent and talented persons more widely developed.

For the artist-printer or typographer who brings forth a printed book that is an example of the highest art expression we must apparently depend upon the evolution of exceptional individuals, individuals with innate sensitiveness to the quality of the printed page, who have steeped themselves in the culture of books and acquired a knowledge of all that is best in the art of printing from its beginning to the present time.

Advertising is an art that we have carried further than any other country. Our consumption of goods is largely effected through its medium. Its volume and diversity have become synonymous with American business methods. During the last dozen years the artistic quality of some of our graphic work has reached a very high level—a level that with possible exception of the best European posters would seem unsurpassed by the products of foreign artists.

Not many years ago the idea of engaging in commercial art was looked down upon by the artist of any reputation who had been trained as a painter. It was difficult to induce such artists to enter this field and it was not until a few had been tempted by generous offers that they consented to "commercialize" their art. Since then the situation has changed considerably. When artists of ability recognized the high standards to which advertising art had progressed, their scruples tended to disappear.

Today some of the artists of the strongest and most virile talent in the country are engaged in lucrative work in the field of commercial art. The demand has developed to such a high order, and the call for exceptional talent is so much on the increase, that the search for men and women of the highest quality still goes on.

The question of efficiently training such artists becomes in consequence a very important question. The general feeling is that no school at present gives thoroughly satisfactory training for this field. The majority of art directors believe, however, that it is entirely within the possibilities of the art schools to train young men so that they would be far better equipped than at present for the advertising field. The consensus of opinion from all concerned is that the broadest training in drawing, composition and design is needed for such persons and that the art school offers the best opportunity for such training.

On the other hand, it is almost uniformly recognized by employers, art directors and artists working in the field that there should be introduced into the training of the art schools from which workers come into this field, a certain amount of instruction that will give the students a better preparation than is now the case for entering upon practical work. It is felt that instruction in advertising composition should form an element in such training. It is also felt that the theory of advertising and the requirements imposed upon the designer by the processes of reproduction should be set forth. The general feeling is that these last two elements could be compassed with comparatively little expenditure of time and might well take the form of lectures.

While these propositions to include a certain amount of technical or practical instruction in the work of the art schools seem thoroughly essential and logical to those concerned with the work of artists in this field, they are evidently propositions that do not always fit well with the psychology of youth. A large proportion of the students who are well adapted for later work in commercial art go to the art schools with their

ideals strongly fixed upon a career as a painter. During the school period these ideals fill their minds and determine the work toward which they incline. The practical elements above mentioned make relatively small appeal, and in many cases would be passed over if offered. This state of mind is undoubtedly encouraged in many cases by the attitude of instructors who throw the weight of their influence strongly against "degrading" art by commercial considerations.

The economic facts of the whole situation facing these students would seem, however, to lay a responsibility upon the art schools to provide in as far as possible instruction in the practical elements noted above.

The problem facing the art schools in this matter of training for the commercial art field would seem, indeed, to be largely that of infiltrating the teachings of mature experience into the mind and vision of youth. With students not only equipped with a broad and thorough art training, but with an understanding of the requirements of commercial art and an inspired interest in this field, there would seem to be little danger but that the employer, the art director, and the studio manager will stand willing to do their part in the further development of such young persons.

A special problem relating to the lithographic industry would seem to demand some reference in this report.

To attract men of real artistic ability as lithographers has been a problem of this industry for many years. The work of the lithographer is to transfer a design or painting to the stone ready for printing with its full quality retained. This is not a creative task but it is one calling for much skill in color and rendering and for genuine artistic feeling. For poster work the highest skill is required to draw a design in a size about forty times as large as the original and retain the feeling intended by the artist.

Effort has been made continually to recruit the ranks of lithographers through apprenticeship and a number of at-

tempts have been made to develop such workers through school training. Earnest efforts have also been made to attract students from life and other classes of art schools into this field but all these measures have been only moderately successful and the greatest need of the lithographic trade today is a larger supply of artists for work on stones, possessing both technical skill and artistic feeling.

Some of the leading artists of America have come from the ranks of the poster lithographers, but the supply of men with real artistic ability has never equalled the demand.

One cause for this unreadiness of artistically trained youth to enter or remain at lithographic work lies probably in the fact that the work is after all essentially mechanical and not creative and men of real creative ability are likely to turn to other fields offering greater freedom even if the assurance of return is less. Another reason is to be found in the fact that art school students are but little informed of the scope and nature of this field or instructed in the requirements thereof.

The solution or amelioration of the difficulty would seem to depend largely upon measures instituted within the trade itself. Through no other channel can the technical skill for this work be acquired at once so economically and so effectively. To insure attracting the right kind of material radically liberal terms of apprenticeship are necessary. On such a basis arrangements for instruction of apprentices in drawing, rendering and color in an art school for a number of hours a week during the regular working day would seem to promise the most practical measure for developing some of the talent needed in this industry.

In addition, there is a strong probability that some able students would be attracted into this field if the opportunities presented and the nature and requirements of the work were set forth in our schools of art. To effect this result, active cooperative measures such as those already undertaken by the National Association of the Employing Lithographers would seem to promise effective returns.

ADDENDA

Opinions of Commercial Illustrators as to Training Needed in this Field.

Drawing, painting, composition and some study of reproduction and advertising should be taught. The foundation of art is imagination. You cannot teach it. But you can develop it. If the pupil has talent, the best examples of works of art obtainable should be set in front of him. He should study them, absorb them, live in them, scribble composition after composition, make rough sketches illustrating passages of books he has read. If he is interested in pen and ink, show him examples of the masters of it—Vierge, Rice, Abbey, etc. Same thing with wash or oils. The basis of all learning is imitation; let him imitate the best—he can do much worse. Do not worry about style, originality or individuality. If he has any it will always come out.

* * * * *

First of all, the standard of teachers is extremely low — generally a teacher of illustration is distinctly second rate, unsuccessful and weak, in every school of which I have knowledge. The most brilliant, successful and vital artists, the most successful ones, should be urged to teach, not just one teacher who quickly becomes fagged and bored with the routine, but say four artists of splendid reputation—each to give one criticism and problem a week. The study of design is of the highest importance—see the beautiful designs of the whole world, from Czecho-Slovak embroideries to Persian miniatures, from Louis XIV inlaid tables to Chinese wall panels—to develop a faultless taste and cultivate the imagination. It is extremely important to an artist to cultivate the visual memory by various simple and amusing exercises, action sketching, memory poses, looking at many things for a minute or two and mentally photographing them. The processes of reproduction of works of art should be studied, and the original drawings of the best illustrators. There should be

exercises to develop perfection or daintiness. Beautiful finish, unusual and charming and individual technique should be encouraged in every way. If fashion art work is done, the most important quality is the appearance of good breeding and refinement in the pose, face, structure and costume of the pictured lady. Artists should be encouraged to go to the Ritz for luncheon now and then and see how very smart women look, also to the opera. I do not like in this day, the very unnecessary, slow, careful, painstaking work which students often have to do at first—large charcoal drawings of casts and nudes, spending often a precious month on these and developing a slow, laborious point of view of art—instead of wit, facility, versatility.

My ideas of an art education are then:

1. Cultivation of visual memory.
2. Study of the works of art of every country in the world—houses, furniture, pictures, textiles, costumes.
3. Better art teachers—young and successful.
4. Drawing from life—quick studies.
5. Lectures on color, composition, design.
6. Much practice work of all sorts for various teachers—speed to be insisted upon, and great daintiness and delicacy and refinement and facility of execution.

* * * * *

An artist should have rather a clear idea of history throughout the ages, an interest in the sciences, and be a careful student of human nature, also a bit of a philosopher. In fact, the wider and more comprehensive his scope of knowledge is, the better his chance of success.

* * * * *

I regard an academic training in drawing, painting and composition as the best preparation for commercial illustration, with all possible training for developing a refinement of taste in the student. This last being, to me, the greatest present need of commercial art . . . I place design as of first

importance, for the very simple reason that it underlies all the others, and is the very basis of any creation. Drawing and painting of course, are essential, but they are merely the tools; the student must be thoroughly trained in their use, but should always have kept before him the idea that they are tools—instruments to an end, not the end itself. Technical facility is highly desirable of course, but after all, the history of art shows plenty of great achievement by means of a mediocre amount of pure technique . . . The artist should be trained in the use of his tools—drawing, painting, etc.—and in applying them in a constructive and individual way, through the study and use of design, to the embodiment of various subjects he is called upon to handle. Individuality must be encouraged and fostered, but at the same time steered into the paths of sincerity and good taste.



The student should be taught the rudiments of draftsmanship and the development thereof. His ambition should be to become an Ingres rather than a commercial artist. Considerable time should be spent in drawing from memory, as this is one of the most vital points in commercial art. Emphasis should be placed on observance of details and every-day conditions and experiences. Taste should be cultivated, as it is the artist who shows taste in his work who succeeds most readily in commercial art. Make pencil notes continually and under every condition. I, personally, believe composition and color are products of the artist's own conception and cannot be taught. The student should acquaint himself with the copy of current advertisements. I should advocate a class in advertising copy wherein the artist would write his own copy and then illustrate it, as advertisements are drawn after the copy policy has been determined. If possible, a series of lectures should be arranged choosing such men as represent the biggest minds in advertising and advertising art, to give their opinions.



The school instructors of illustration are more often artist painters; their teaching, as far as it goes, is sound, but their ignorance of the graphic arts is profound. Very naturally they are not interested in the mechanical side of art. Engraving, lithographing, paper, ink, advertising, etc., are all closed books to them. But as the majority of art students are obliged to make their own way upon graduation, they naturally gravitate to commercial art, and without any knowledge of the mechanics of reproduction they flounder for a period; some eventually learning the rudiments of reproduction but many becoming discouraged and giving up. The commercial designer, like the illustrator, should understand the mechanical processes, and he should know period decoration and lettering. I cannot make the point on lettering too strong. The schools in a weak way try to teach lettering, but the effort and result are pitiable. Very few teachers understand the art and to most students lettering is dry and uninteresting; but as nearly every commercial design contains lettering, it seems strange that so little thought has been given the subject.

* * * * *

During all the fundamental teaching in drawing, painting, composition and design, some time should be found to teach the things that an art concern, an advertising agency, a lithograph company or an engraving house would require in a beginner. Just ordinary paintings and drawings are not enough. They are not enough unless they have certain other elements. They must be workmanlike, which means neatness, completeness and to a particular purpose. If there is a novel idea, so much the better. Drawings with good lettering at once suggest that the beginner can be of use during his training period. And so, if I were starting over, this would be my choice: drawing as soon as possible from life. Painting, in all mediums, and after the first year, in whichever one the student chooses. Composition, lots of it and with all possible encouragement for the unusual. Design, which should include a great amount of lettering.

* * * * *

I would suggest that the student first go through a thorough course of draftsmanship, learning the fundamental construction of every object thoroughly by applying a memory test to everything undertaken—not for the instructor's benefit, but for his own benefit, to be used later on where without material or data on hand his memory of objects and scenes has been so well trained that he can visualize and then construct. Under the title Drawing should come block construction, figure construction, anatomy construction, perspective, plus memory training. The student taking up illustration should have a course in the theory of advertising, from the experience and knowledge of a practical advertising agency. This naturally is an after training to a student who has learned his trade. The process of reproduction comes last, because he can adjust his mediums and designs, after learning them thoroughly, to mechanical processes. The most important training after the foregoing is to teach the student to think for himself, meaning thereby to originate. To do this, he should study the best that has been produced in illustration, painting and advertising. Not to copy for the sake of imitation, but for the knowledge to develop taste for the best.

SCHOOLS OF APPLIED ART IN THE UNITED STATES

A list of all schools of art in the United States, totaling 274, is given in the American Art Annual for 1921. Fifty-eight schools selected as representative of various types of work related to the field of the survey were studied through personal visits of representatives of the staff.

Some thirty schools, noteworthy for their reputation and scope or for the special nature of the work presented, have been selected for brief descriptive notices. Collectively these schools represent by far the major part of serious instruction in applied art in the United States. It should not be assumed, however, that creditable work is not being done in institutions other than those described. In a number of schools outside of this group, thoroughly sound instruction leading to practical capacity in design is undoubtedly being given.

No attempt to evaluate the quality of work performed in these schools has been made. Such evaluation would not seem to be needed for the purposes of this report and the Survey was not organized with the object of making authoritative judgments concerning the work of the schools.

The schools in this group may be classified either as to the form of organization and support or by reference to the subjects taught. The Survey has adopted the first method as regards those schools affording instruction in a number of subjects, grouping special schools devoted to one particular branch under the subjects of instruction.

The classification adopted, while not at once indicative of the quality of work represented, portrays more or less the scope and character of the different schools. For example, instruction in the college group as a rule has a distinctly cultural basis and comprehends but a small amount of work in applied design. The courses in art departments connected with art museums, with one notable exception, incline toward

APPENDIX

The first thing to be considered with regard to the number of courses in applied art is the number of students who are interested in the subject. It is not enough to have a few students who are interested in the subject, but it is necessary to have a sufficient number of students to make the study of the subject profitable. The number of students who are interested in the subject is the first consideration in determining the number of courses to be offered.

It is also necessary to consider the subjects of instruction in the school. If the subjects of the high school are such that it is impossible to have a sufficient number of students who are interested in the subject, it is necessary to have a separate school for the subject. The subjects of instruction in the school are the second consideration in determining the number of courses to be offered. The subjects of instruction in the school are the subjects of the high school, the subjects of the college, and the subjects of the university. The subjects of instruction in the school are the subjects of the high school, the subjects of the college, and the subjects of the university.

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Graphic Design	12
Interior Decoration	12
Commercial Illustration	12
Applied Design	12
Textile Design	12
Ceramic Design	12
Jewelry Design	12
Metal Design	12
Furniture Design	12
Stenciling Design	12
Lithography	12
Printing Design	12
Wall Paper Design	12

It is evident that a comparatively small percentage of the courses in applied art listed in school catalogues can be con-

COURSES OFFERED IN INDUSTRIAL ART		MARYLAND INSTITUTE	BALTIMORE, MD.
COSTUME DESIGN		WENTWORTH INSTITUTE	BOSTON, MASS.
INTERIOR DECORATION		OHIO MECHANICS INSTITUTE	CINCINNATI, OHIO
COMM. ILLUSTRATION		CLEVELAND SCHOOL OF ART	CLEVELAND, OHIO
APPLIED DESIGN		OTIS ART INSTITUTE	LOS ANGELES, CAL.
TEXTILE "		SWAIN FREE SCHOOL OF DESIGN	NEW BEDFORD, MASS.
CERAMIC "		COOPER UNION	NEW YORK, N. Y.
JEWELRY "		PRATT INSTITUTE	" " "
METAL "		SCHOOL OF APPLIED DESIGN FOR WOMEN	" " "
PRINTING "		PHILADELPHIA SCHOOL OF DESIGN FOR WOMEN	PHILADELPHIA, PENN.
FURNITURE "		SCHOOL OF INDUSTRIAL ART	" " "
SCENIC "		CARNEGIE INSTITUTE	PITTSBURGH, PENN.
LITHOGRAPHY		RHODE ISLAND SCHOOL OF DESIGN	PROVIDENCE, R. I.
WALL PAPER DESIGN.		ROCHESTER ATHENAEUM & MECHANICS INST.	ROCHESTER, N. Y.
		SKIDMORE SCHOOL OF ARTS	SARATOGA SPRS., N. Y.
		COLLEGE OF INDUSTRIAL ARTS	DENTON, TEX.
		NEWCOMB COLLEGE SCHOOL OF ART	NEW ORLEANS, LA.
		TEACHERS COLLEGE - ART DEPT.	NEW YORK, N. Y.
		SCHOOL OF FINE ARTS - WASHINGTON UNIV.	ST. LOUIS, MO.
		COLLEGE OF FINE ARTS - SYRACUSE UNIVERSITY	SYRACUSE, N. Y.
		SCHOOL OF THE MUSEUM OF FINE ARTS	BOSTON, MASS.

BY		MUSEUMS	
INDIANAPOLIS, IND.	MINNEAPOLIS, MINN.	SAN FRANCISCO, CAL.	WORCESTER, MASS.
BERKELEY, CAL.	BOSTON, MASS.	CHICAGO, ILL.	NEW YORK, N. Y.
WASHINGTON, D. C.	BOSTON, MASS.	GRAND RAPIDS, MICH.	MILWAUKEE, WIS.
NEWARK, N. J.	NEW YORK, N. Y.	TRENTON, N. J.	FALL RIVER, MASS.
LOWELL, MASS.	NEW BEDFORD, MASS.	NEW YORK, N. Y.	NEW YORK, N. Y.
BATTLE CREEK, MICH.	CHICAGO, ILL.	MINNEAPOLIS, MINN.	INDIANAPOLIS, IND.
ALFRED, N. Y.			

sidered as offering practical and intensive instruction. Subjects like textile design, ceramic design, jewelry design and furniture design offered in many schools throughout the country apart from large centers of design or manufacture must obviously have little outcome other than handicraft design.

The personal studies conducted by the Survey corroborate this statement and indicate that serious and thorough instruction in applied design which functions in the training of practical designers is afforded by very few schools in the United States.

ENDOWED SCHOOLS

MARYLAND INSTITUTE

Baltimore, Maryland

The School of Fine and Practical Arts, founded in 1847, is part of the Maryland Institute, which is a private institution controlled by a board of managers and supported by endowments, by city and state appropriations, and by tuition fees. One hundred and eight state scholarships are awarded, one of which is awarded by each state senator subject to the approval of the local county school board. One hundred and fifty-six scholarships, provided by the city, are awarded by the mayor and city council. Appointments for such scholarships are subject to the approval of the school.

There are no entrance requirements other than a minimum age requirement of seventeen years. The fee is \$50 a year for day sessions and \$8 for the evening session.

The industrial art classes include General Design, Advertising Design, Costume Design, Interior Decoration, Jewelry and Textile Design. These are all three-year courses.

All students pursue a general design course the first year, including drawing, design, color and modeling. The students specialize in the last two years.

Jewelry and Silversmithing—Designing, making of wax models and the execution of the designs in metal.

Textile Decoration—Designing and execution of batik, stencils, block prints and embroideries.

Leather—Designing and execution of leather work.

Modeling—Ornamental and figure modeling.

Interior Decoration—Design, cast drawing, perspective, anatomy, composition, history of art, illustration or drawing from costume model.

Costume Design—Design, costume design, life drawing, history of art.

Four-year evening courses are offered in Costume Design, Lettering, Poster Work, Show-card Writing and Illustration.

Craft work is performed in the industrial art courses. There is no organized method of selling school work.

Of the twenty-two instructors in the School of Fine and Practical Arts, eleven teach industrial art subjects. Only a few have had experience in the fields in which they instruct.

There is no cooperation with individuals or advisory committees from the trades.

In 1921-22 the average number of students in the day industrial art courses was 150.

PRATT INSTITUTE

Brooklyn, New York

The Pratt Institute School of Fine and Applied Arts is a department of the institute for the training of teachers and professional workers in arts and crafts. Tuition fees of \$100 per year are charged. Students, seventeen years or over, are admitted to all courses only on advanced standing in drawing equivalent to at least one or two years of training.

The following industrial art courses are given: Commercial Illustration; Costume Illustration; Applied Design and Interior Decoration; Applied Design and Crafts; Jewelry and Silversmithing.

Applied Design and Interior Decoration—Two year course. First year: General free-hand drawing, ornament, principles of design, modeling, instrumental drawing and interior architecture, color and the rendering of textiles and simple interiors. The second year is devoted to more elaborate problems in design and to period interior decoration and furniture design, rendering in color, and to study of textiles and draping.

Applied Design and Crafts—Two-year course. The first year and part of the second year the same as the Interior Decoration course, with much time in the second year devoted to textile design, block printing, batik, wood-carving, jewelry and metal work.

Jewelry—Three-year course. Drawing, modeling, designing and executing of practical jewelry, also silversmithing.

Commercial Illustration—Three- and four-year course. General drawing, life drawing, painting, design, commercial composition, lettering and advertising design.

Costume Illustration—Three-year course. General drawing, color, life drawing, painting, designing, pattern drafting and costume illustration and designing.

Evening classes are maintained for three nights a week for twenty-four weeks ; three years. The evening classes in industrial art comprise commercial illustration, jewelry and silversmithing, design and interior decoration, color and draping. The tuition fees are \$15 and \$20.

Of the forty-four instructors and assistants connected with the school, eight give approximately full-time instruction and twenty-two part-time instruction in the industrial arts courses. Twenty of these instructors have had practical experience in the fields in which they teach, and fourteen maintain some form of practical trade relations at the present time.

Craft work is performed in textiles, woodwork, metal, jewelry and pottery.

There is no direct cooperation with committees from the trade.

The average number entering and graduating from the industrial art courses in the last five years is as follows: Applied Design and Crafts, entering class, 25, graduating class, 14; Applied Design and Crafts, entering class, 10, graduating class, 6; Jewelry, Silversmithing and the Crafts, entering class, 15, graduating class, 4; General Course (which includes work in Costume Illustration), entering class, 105, graduating class, 38.

The School of Household Science and Arts maintains trade classes in Costume Design, Millinery, Trade Dressmaking, Pattern Making and Draping.

Costume Design Class—Nine months, five days a week. Fee \$103. Applicants must be eighteen years old and show examples of their work in dressmaking. The course includes sketching, draping, cutting, fitting, finishing, workroom management, color harmony and historic research.

Millinery—Six months, five days a week. Fee \$75. Applicants must be seventeen years old and pass an examination in sewing. The course includes preparing, making, copying, trimming and designing.

Pattern Making and Draping—Three months, five days a week. Fee \$35. A course primarily for finishers in establishments, who wish to make patterns and copy models.

Trade Dressmaking—Nine-month course, five days a week. Applicants must show examples of their work to enter class and take an examination. The course includes drafting, blocking, draping, cutting, fitting and finishing, making various types of gowns, tailoring, power-machine operating, shop practice, color and material combining and embroidery.

There are also night and part-time classes in dressmaking, draping and millinery. Of the twenty-five instructors in these classes, twenty have had trade experience. The day enrollment in 1921-22 was 140 students and in the night classes 286. The department has no advisory board but maintains touch with trade conditions.

CLEVELAND SCHOOL OF ART

Cleveland, Ohio

This school is in charge of a Board of Trustees chosen from among the citizens of Cleveland. It is supervised by an Advisory Board representing the cultural and industrial interests of the city.

The tuition fees range from \$15 per month to \$200 per year.

Students must be over seventeen years of age to be admitted to the regular day courses.

The following industrial art courses are offered: Decorative Design, Ceramic Art, Jewelry and Silversmithing, Interior Decoration, Costume Design, Commercial Art.

All beginning students pursue a general course including free-hand and mechanical drawing, drawing from nature and life, modeling, illustration, decorative and structural designing, coloring, and making in various mediums. This work is planned to cover a period of two years, but may be completed

in one year. At the completion of this course the student is allowed to specialize to a considerable extent in one subject.

A graduate school was established in September, 1919, on the plan that graduate students should perform work of professional character contracted for by the school and that in return ten per cent. of their earnings should be retained by the school as a promotion fund.

The specialized work in the industrial art courses includes the following:

Decorative Design—Interior decoration, life drawing, anatomy, architectural modeling, commercial illustration, design involving construction.

Ceramic Art—Decorative design and the technique of ceramic decoration; textile design; drawing from nature, including animal forms and the figure; interior decoration; research work at the Cleveland Museum of Art and technical training at a Cleveland pottery.

Jewelry and Silversmithing—Designing and making of jewelry and articles in copper and brass, as well as in silver.

Interior Decoration—Study and application of the principles of design and color as related to architectural interiors, arranging display rooms in the larger stores, home furnishing, historic-period decoration, research work in the Museum and elsewhere, rendering.

Costume Design—This course requires an experimental knowledge of tailoring, and a study of the history of costume and costume materials. The course aims to train designers and makers of clothing, teachers of costume, and workers in the field of costume illustration.

Commercial Art—Pictorial and commercial illustrations; design for printing in one, two or three colors for reproduction in silhouette, line, or Ben Day plates; drawing from life; modeling. There are also courses in cartooning and newspaper illustrating, commercial design, and illustration.

The courses of the evening school change from year to year to meet the varying needs of classes. The only applied art course offered regularly is one in jewelry and silversmith-

ing, but provisions are made for individual instruction in such subjects as the students may elect.

There are thirteen teachers in the industrial art courses. Seven of them have trade connections, including the sculptors.

There is craft work in connection with the work in the design class. An arts and crafts society sells the students' craft work in a shop. Every attempt is made by the school to cooperate with the trade. Work of a professional nature is obtained by the school for the students in the graduate class.

In 1921-22 there was an average of 374 students in the industrial art courses of the day school and 192 in the evening classes. Diplomas were awarded in 1921 to 30 graduates from industrial art courses.

WOMAN'S ART SCHOOL—COOPER UNION

New York City

Cooper Union is an institution offering free instruction, comprising a number of departments or schools under the control of a Board of Trustees. The executive head is a director appointed by the board. Among the departments are the Woman's Art School and the Night Art School. The Woman's Art School is maintained for the purpose of enabling young women who expect to be dependent upon their own exertions for gaining a livelihood, to obtain, free of cost, a training that will fit them for useful activity in art work of one form or another.

A Ladies' Advisory Council is associated in the administration of the school.

A preparatory course of three years in free-hand drawing is required, as a whole or in part, as a basis for specialized work in applied art. The applied art courses offered are as follows:

Illustration—Two years. Drawing from the human figure, costume and accessories in the various media used in drawing for publication; pictorial composition.

Decorative Design—Two years. Elements of design, historic

motives, application of principles to original designs of rugs, textiles, stained glass, jewelry, etc., study of historic ornament, technical painting in water-color, specialization in various branches of design, painting in oil of panels, screens and of ornament in general.

Interior Decoration—Three years. Plans and elevations of interiors in various styles with furniture, hangings, etc., peculiar to each period; painting in water-color of ornaments, decorative panels, screens, etc.; architectural drawing (plans and sections of doors, windows, fireplaces, etc.) drawing and rendering of interiors in perspective; original designs of decorative subjects fully executed in oil color; original designs of tablets, wall fountains, mantels and overmantels, etc.

Design Applied to Advertising and General Business Purposes—Three years. Principles of design, study of natural and other forms and their decorative treatment; special and practical application to book and advertising design; lettering; use of color; studies from the living figure with application to poster and other forms of advertising; study and use of reproductive processes.

Costume Design and Illustration—Two years. Drawing and sketching the human figure in action, proportion and details, also from garments and drapery; historic costume; color theory; dressmakers' sketches; drawing for publication in pencil, pen-and-ink, wash, color, etc.; composition and grouping of figures; general preparation for practical work.

Most of the instructors devote part time to teaching in the school. Seven of these are painters, one a sculptor, one an architect, one a decorative designer and one a costume designer.

For a number of years a commercial studio called Panier Fleuri was maintained by members of the Advisory Council. Graduates of the course in decorative design were admitted to the studio, where they received moderate wages while serving a practical apprenticeship in commercial decoration and design.

For the last five years the average total enrollment in the

various courses of the Woman's Art School was 322, distributed as follows: preparatory course, 120, antique class, 50; life class, 40; illustration, 17; decorative design and interior decoration, 60; fashion, 35. The average number of graduates was fifteen.

The Night School of Art is composed of four departments: Free-hand Drawing, Decorative Arts, Modeling, Architectural Drawing.

The courses offered in the Decorative Art Department are decorative design, design applied to the printing arts; advertising and poster design, interior decoration, costume design and illustration, decorative and pictorial composition and illustration, furniture design. Work in modeling affords instruction both for industrial workers and for intending sculptors.

Applicants under sixteen years of age are not admitted to either school. In the case of the Night School preference is given to candidates who are engaged in occupations directly related to the instruction offered by the classes.

There is no craft work in connection with the instruction and no designs are sold by the school.

A Museum of the Arts of Decoration with a large collection of casts and original examples of decorative work, arranged chronologically, as well as an important reference library, are at the service of students in both schools.

SCHOOL OF APPLIED DESIGN FOR WOMEN

New York City*

The New York School of Applied Design for Women is administered by a life Board of Trustees including the Mayor of the City, the Bishop of the Episcopal Diocese of the City of New York, the President of the Metropolitan Museum of Art, and six others, and a Board of Managers of fifteen members. The object of the school is to afford to women practical instruction which will enable them to earn a livelihood by the

*This school at present has no endowment but is organized and conducted much on the basis of an endowed school.

application of ornamental design to manufacture and the numerous arts and crafts. The tuition fees for the regular courses are \$105 for the year of three terms. The fees for the applied art and special courses range from \$15 to \$55 per term.

The instruction is planned to cover a two-year period, except in the Architectural Department where the course is organized on a three-year basis. The plan of instruction embraces an elementary and an advanced department. The student is allowed to pass from one department to the other whenever her attainment justifies the promotion. The elementary department includes object and cast drawing, flower drawing and painting, antique, elementary and advanced design, perspective, elementary historic design. The advanced department deals with the following courses: the application of design to the manufacture of textiles, the application of the elementary instruction to the work of an architect's draughtsman and interior decoration and the application of the elementary instruction to illustration. There are also special courses in poster design and advanced commercial art, design, historic ornament, and fashion illustration. Much stress is placed on the study of historic periods. Individuality in work is encouraged.

No applicants are admitted below the age of sixteen. Examinations are not required for entrance into the elementary course.

There are nine instructors, all of whom are engaged in practical work in the different branches in which they teach. There are no advisory committees from the trades.

There is no craft work in connection with the courses. There is a Bureau of Sales and Positions which assists the students in the sale of their designs executed during the term of study. This bureau, which was established in January, 1919, also places students in paying positions as soon as they are qualified to fill them. A printed list of firms employing or who have employed students of the school shows 24 rug firms, 12 wall paper, 47 textile, 47 architecture and interior decoration, 47

publishers and advertisers, 9 jewelers, 33 fashions, 29 embroidery, 14 lamp shade and furniture painting, and 60 other firms. It is claimed that 85 per cent. of the students enter actual professional work.

In 1921-22 there were 92 in the industrial art classes. Certificates were awarded to 15 students who had studied in the industrial art courses.

PENNSYLVANIA MUSEUM AND SCHOOL OF INDUSTRIAL ART

Philadelphia, Pa.

This institution, founded in 1876, aims to train workers in design and its practical applications. The Museum and School are governed by a Board of Trustees consisting of the Governor of the State, the Mayor of the City, one member appointed by each of the following: the State Senate, the House of Representatives, the City Council, and the Commissioners of Fairmount Park, and seventeen other members elected by the corporation consisting of the subscribers to the work of the school. There are an Executive Committee, a Committee on the Museum, a Committee on Instruction, and an Associate Committee of Women.

There are two departments in the school: the Department of Industrial Art and the Textile School. The School is in charge of a principal under whom is a director of the textile department.

A tuition fee of \$100 a year is charged for the day school and \$20 for the night school. The state contributes \$56,250 and the city \$30,000 toward the support of the museum and school. The state funds supply one or more free scholarships for each senatorial district in the state. The Board of Education of the City of Philadelphia also furnishes a number of free scholarships. Pupils of all the High-Schools, the Normal School, and the Public Industrial Art School are eligible for these appointments, which are made by the Board on the recommendation of the principals of the several schools.

There are a certain number of additional free scholarships made available by special funds, which are granted for meritorious work to students who have already spent at least one year in the school.

New students are taken on sixty days' trial and must be sixteen years old.

The industrial art courses are: Applied Design, Commercial Illustration, Interior Decoration, Woodwork, Carving and Furniture, Pottery, Costume Design and Metal Work.

All first-year students receive instruction in cast drawing, principles of design, color theory, modeling, lettering and mechanical drawing. Specialization begins in the second year, but all students study cast drawing, anatomy, nature study, perspective, modeling, historic ornament and research, with special work in the following courses:

Design—Deals with principles of hand-wrought and printed design, leading later to the technical requirements of hand- and machine-printed all-over patterns.

Pottery—Includes throwing, glazing, etc., supplemented by museum research.

Modeling—Deals with architectural ornament and ornament for wood-carving and ironwork.

Metal and Jewelry—A practical course in the designing and making of metal work and jewelry.

Interior Decoration—The special problems in this course are shades and shadows, lectures on architecture, furniture design, room elevations in color, leaded glass and mural design.

Wood-carving and Furniture—Is closely associated with modeling and interior decoration. Lectures on the evolution of furniture.

Illustration—Includes life drawing, composition, commercial illustrating and lectures on theory of illustration.

Costume Design—Consists of drawing from the costumed model, cutting, draping, design in fabrics, dressmaking, and study of historic styles and fashion tendencies and factory methods.

Industrial art classes given in the evening are lettering, interior decoration, general design, commercial illustration, costume design and making, modeling, wood-carving and furniture design, and wrought-iron forging.

There are fourteen full-time and seventeen part-time instructors in the industrial art courses. Twenty-one of the instructors have had practical experience and sixteen maintain trade relations at present.

The school does not sell students' work.

A number of persons engaged in the art industries of the city visit the school and cooperate in an advisory capacity as individuals whenever called upon.

In 1920-21, there were 625 students in the day classes of the Industrial Art School and 384 in the evening classes. Diplomas were awarded to 42.

The Philadelphia Textile School is a department of the Pennsylvania Museum and School of Industrial Art, headed by a director. The school possesses an extensive equipment of machinery for the manufacture of yarns and for weaving, finishing and dyeing.

The courses provided are as follows: Regular Textile Course—three years; Chemistry, Dyeing and Printing Course—three years; and Courses in Cotton, Wool and Worsted and Silk of two years each. A course in Figured Design is listed but has not been given for several years on account of lack of applications.

The admission requirements to the general courses are a minimum age of eighteen years and graduation from an approved high-school. The fee for the Regular Textile Course amounts to \$290. The Textile School participates in the scholarship provisions as noted under the School of Industrial Art.

The Regular Textile Course includes the following subjects: First year—Weave formation, analysis and structure of fabrics, free-hand drawing, design development, textile coloring, warp preparation and weaving, figured design, cotton yarn manufacture. Second year—Weave formation, analysis and structure of fabrics, figured design and textile

coloring, wool and worsted yarn manufacture, warp preparation and weaving, chemistry, dyeing and finishing. Third year—Weave formation, analysis and structure of fabrics, cost-finding, figured design and textile coloring, yarn manufacture, warp preparation and weaving, chemistry, dyeing and finishing.

Nine hours a week are devoted to design and textile coloring in the first year, six in the second and seven in the third.

A number of prominent textile manufacturers of Philadelphia cooperate as advisers in matters pertaining to the course of study.

Few if any graduates of the Textile School have become designers. This is in part due to the fact that the salaries paid in technical positions are larger than those paid for designers and the student shapes his plans and course of study accordingly. While these graduates have not entered designing rooms they have in considerable numbers become technical experts in mills, where they have had much to do with developing weaves for new fabrics.

CARNEGIE INSTITUTE OF TECHNOLOGY

Pittsburgh, Pa.

Carnegie Institute was founded in 1900 by Andrew Carnegie. The institution is endowed and is governed by a board of trustees. A number of schools and departments are maintained.

Tuition is \$150 a year. A high-school education is required for admission.

The industrial art subjects taught in various departments are commercial illustration, costume design, textile design, interior decoration, stage design and printing.

The Illustration Course given in the Department of Fine Arts includes drawing and painting from life, still life, composition, design, modeling, illustration, lettering, perspective, history of civilization, history of art, reproduction processes, history of illustration, history of costume, legendary art, French, English, history, and physical training.

Costume design, interior decoration, and textile design are

taught in the Industrial Art School. These courses include history and language in addition to the subjects related to design.

Stage Design is taught in connection with the School of the Drama.

The School of Printing, a department of the College of Industries, maintains a four-year course planned to train men for executive positions in the printing industry and leads to the degree of Bachelor of Science in Printing. Besides English, science, mathematics, accounting, economics, and psychology, the course includes sketching, designing, cylinder press work, machine composition, lettering, binding, shop organization, imposition, makeup, photography, presswork, salesmanship, advertising, banking, estimating, engraving and typography.

There is also a two-year course in printing, including the following subjects: English, mathematics, physics, hand and machine composition, presswork, chemistry, civics and current events.

RHODE ISLAND SCHOOL OF DESIGN

Providence, R. I.

This school, founded in 1877, is governed by a Board of Trustees consisting of twelve regular and ten ex-officio members, including the Governor of the State, the Mayor of the City, and two members of the State Board of Education. The Trustees are chosen by the governing members of the corporation who in turn are chosen by ballot by the Board of Trustees upon the recommendation of the Nominating Committee. The corporation is made up of Annual Governing Members who pay dues of \$10 a year, of Governing Members for Life, who have paid \$100 at one time, and of Annual Members who pay \$3 a year. There are an executive, a museum, a library, a finance, a nominating and an auditing committee.

The tuition for the day classes is \$45 a term (half the school year). For evening classes of six hours a week the tuition is \$10 a term. In the department of decorative design

the institution receives the benefit of the following scholarships: sixteen day scholarships of \$45 each and twenty-one scholarships of \$10 for evening students, from the state; and five scholarships of \$10 each, for evening students, from the city; and sixteen scholarships of \$10 each, for evening students, provided by employers.

The following applied art courses are offered: Decorative Design, Interior Decoration, Textile Design, Illustration, Jewelry and Silversmithing.

Decorative Design—Four years. Cast and life drawing, still life, mechanical drawing, perspective, modeling, design and color theory, analysis of natural and historic forms, pictorial composition, historic ornament and history of art.

Interior Decoration—Four years. A course containing elements from both the architectural and design courses and in addition problems in interior design and rendering. After the first year the work consists largely of original problems fully drawn and rendered. The museum in connection with the school contains a fine collection of Georgian furniture from which the students are allowed to make studies.

Textile Design—Three years. Weave formation; fabric analysis and construction; warp preparation; weaving; color and design; drawing; chemistry; yarn manufacture, dyeing; Jacquard design and warp preparation and weaving. The instruction is adapted as far as possible to the special requirements of the textile industry of Rhode Island.

In the course in Jacquard design, instruction is given in the principles of the ordinary harness ties; planning of designs for single fabrics, proportion and color, texture, laying out; card cutting; card lacing and weaving, special harness ties; planning of designs for extra warp, extra filling and double cloth; cotton blankets, silk draperies, damasks, narrow fabrics; etc. The course in color and design, includes instruction in—decorative pattern construction colors and their relation to one another, color harmonies and contrasts; analysis of natural and historic forms; construction of motives for textiles; study of historic textiles problems in applied design

based on the above work, with special reference to construction for the loom.

Illustration—Four years: Life drawing, painting and illustrating. Problems in advertising are especially dealt with in the night classes.

Jewelry and Silversmithing—A course covering the principal branches of the jewelry industry. The workshops are equipped with power appliances and general shop tools presented to the school by the trade. The course includes free-hand drawing, sketches of models, ornament and designs of jewelry, principles of design, modeling; theory of color, rendering; mathematics; history of ornament, nature studies; composition; practical work in saw piercing, wire bending, jewelry making; soldering and filling, repoussé, enameling, engraving; raising and hammering metal bodies.

Similar courses are offered in evening classes.

There is a faculty of seven. About fifty others give instruction in various special branches or deliver lectures. The majority of the instructors are practical workers actively engaged in the field in which they teach.

Considerable craft work is done in the textile and jewelry departments. No designs or craft work produced in the school are sold by the institution.

There is close cooperation with the jewelry and textile trade. There is no record of the placement of the graduates, but the majority work in the local industries.

SCHOOL OF APPLIED AND FINE ARTS
of the
ROCHESTER ATHENAEUM AND
MECHANICS INSTITUTE

Rochester, N. Y.

The Rochester Athenaeum and Mechanics Institute is an endowed institution charging tuition fees of \$200 per year. The school is administered by an Executive Committee appointed by the Board of Trustees. The members of the Board

of Trustees are elected by subscribing members. The President, or executive head of the school, is a member of the Executive Committee.

The work of the school is organized under four departments: the School of Industrial Arts, the School of Home Economics, the School of Applied and Fine Arts, and the Evening School.

The School of Applied and Fine Arts aims to develop the appreciation of beauty, and to teach the practical application of this to daily living. The following three-year courses in industrial art subjects are offered in this school: Costume Design, Design and Interior Decoration, Illustration and Advertising Art.

Candidates for admission must be in good health, show satisfactory evidence of good character, and be at least seventeen years of age. They should also display ability and interest in art or craft lines. A general course including design and color, composition, sketching, perspective, free-hand drawing, clay modeling, history of architecture, and English, is pursued by first-year students in the regular courses.

The work of the second and third years in the industrial art courses is as follows:

Costume Design—Design, dressmaking, study of textiles, history of costume, drawing and water-color, anatomy, history of painting and sculpture, historic ornament, English, sketching, millinery, pen and pencil rendering, weaving.

Design and Interior Decoration—Design, lettering, drawing and water-color, mechanical drawing, historic ornament, history of painting and sculpture, English, painting, illustration, pottery chemistry of glazes, craft applications, house construction, house decoration.

Illustration and Advertising Art—Life drawing, painting, illustration, design, composition, lettering, historic ornament, history of painting and sculpture, English, anatomy, sketching.

A Department of Lithography has recently been established in which a one-year course is offered which embraces a com-

plete training in drawing including perspective, geometry, color work, water-color painting, color harmony, drawing on stone with pen and crayon, full instruction in photo-litho work, retouching of positives and negatives with the air-brush, including the use of the Ben Day machine for the stone work and the photo-litho processes. Students sixteen years of age or over are admitted to this course.

The applied art courses offered in the evening school include: Life Drawing, Illustration, Composition, Sign Painting, Show-card Writing, Applied Design, Interior Decoration, Costume Design, Metal and Jewelry, Pottery.

There are fourteen teachers who give full or part-time instruction in the industrial art courses. These teachers maintain intimate relations with the commercial field in which they instruct. With the exception of three assistants who have had comparatively little practical contact, the instructors have had commercial experience in their respective trades.

Craft work is offered in connection with the application of designs to pottery, jewelry and metal work, stenciling, wood-block printing, dyeing and batik work. There is at present no practical cooperation with individuals or committees from the trades.

In 1921-22 there was an average of 185 students in the industrial art classes of the day school and 290 in the evening classes. Diplomas were awarded in 1921 to five graduates from industrial art courses.

SCHOOLS CONNECTED WITH COLLEGES

SCHOOL OF ART THE H. SOPHIE NEWCOMB MEMORIAL COLLEGE FOR WOMEN

New Orleans, La.

The H. Sophie Newcomb Memorial College, founded in 1886, is devoted to the higher education of young women. In 1909 the College was organized into schools and the Department of Art became the School of Art, headed by a Director. The annual tuition fee for students taking a full course is \$175. There are a number of scholarships which amount practically to the remission of tuition fees.

Candidates for admission to the regular course must be at least sixteen years of age and graduates of a high-school.

The following courses of study are offered in the School of Art: a four-year course leading to the degree of Bachelor of Design; art electives for academic students counting towards the degree of Bachelor of Arts; art courses required in home economics.

The aim of the course leading to the degree of Bachelor of Design is to provide opportunity for specialized study in art, mainly for those who intend to practice art as a profession, but provided with pedagogical electives for those desirous of teaching positions. The students pursue required courses in the first year, and beginning with the second year, take a certain number of electives. In the third year two art crafts must be elected. In the fourth year the student may elect only one craft, giving double time to this.

The following industrial art courses are given: Theoretic Design, Advanced Design, Interior Decoration, Silversmithing and Jewelry, China Painting, Pottery Decoration, Embroidery, Weaving, Bookmaking, Bookbinding, Pottery Making.

Pottery Making—Those taking this course with the intention of conducting a studio of pottery or to teach the subject

are required to pursue a two-year course in chemistry. The course may be pursued without chemistry, however, by others.

First year: Designing of vase forms; making of forms by coiling, modeling and turning; mold making; making of simple glazes and their application; use of kiln. Second year: the same continued and amplified; theory of ceramics, testing and preparing clay for bodies; burning of body tests; composition of raw, clear and color glazes; their alterations, blends and defects; matte glazes; ceramic calculation; making of vase forms continued. Third year: Theory and practice continued.

In the course in Domestic Art in the department of Home Economics there is a course in Costume Design which includes a study of line and color in dress, the analysis of gowns, and the interpretation of the mode as expressed in the best publications.

Of the nine instructors in the School of Art six give instruction in applied art. The instructors do not maintain any practical relations with commercial design in the fields in which they instruct other than those which are maintained between the Newcomb School of Art and its pottery, metal shop, bookbindery and embroidery studio which form component parts of the school. No relations with trade committees are maintained.

There is craft work in connection with all the art courses save the first-year design course. Practically all of the designs are executed in the materials themselves. The design which has been carried out in material—textile, metal, paper, clay—is offered for sale. The school maintains a commercial pottery and other workshops which turn out some \$23,000 worth of artistic merchandise each year. Practical factory methods prevail in this establishment and it is run on a commercial-artistic basis. Through the sale of products the pupil of exceptional talent and industry is enabled to pay the greater portion of her expenses after the second year.

In 1921-22 there were 130 students in the industrial art

courses. Degrees were awarded in 1921 to ten graduates from industrial art courses. A number of graduates, which varies from ten to twenty, are usually found at work in the school factory. A few former graduates are engaged in interior decoration establishments in New Orleans and San Francisco. A considerable number are engaged in teaching.

ST. LOUIS SCHOOL OF FINE ARTS WASHINGTON UNIVERSITY

St. Louis, Mo.

The St. Louis School of Fine Arts is a department of Washington University and is governed by the University Corporation. It is supported by endowment, subscription and tuition.

Tuition is \$75 a year in the regular classes. There are no special requirements for entrance but a high-school education is advised. Several scholarships are awarded to students from the local public schools and several to advanced students in the school.

In addition to the regular classes in Drawing, Painting, Modeling and Composition, there are classes in Commercial Illustration, Costume Illustration, Interior Decoration, Ceramics, Weaving, Jewelry, Wood-carving, Etching, and Monotyping.

Commercial Illustration—Drawing from the antique and life, anatomy, perspective, history of art, painting in various media, drawing from costumed models, lettering, layout design and the designing of commercial advertisements.

Costume Illustration—Drawing from the antique and life, anatomy, history of art, study of period costume, designing of costumes and of advertisements relating to women's clothing.

Interior Decoration—Drawing from antique and life, anatomy, history of art, design, study of historic styles and the designing of drapery, furniture, and interiors in elevation and perspective.

Ceramic Course—Drawing from antique and life, design,

historic ornament, china painting, construction of pottery both by building up and by the wheel, glazing and firing.

Craft work is performed also in weaving, jewelry, metal work, wood-carving, basketry, bookbinding, leather tooling, etching and monotyping. The school does not attempt to sell this work, but a bazaar is held every year by the Students' Association.

Of the fifteen instructors in the school, six have had experience in industrial art work.

A committee composed of representatives from various commercial establishments supervises the work of the industrial art classes.

Certificates are awarded in some of the classes on the completion of three or four courses.

SCHOOLS CONNECTED WITH MUSEUMS

ART SCHOOL OF THE ART INSTITUTE OF CHICAGO

The Art Institute of Chicago, of which the Art School is a part, was incorporated May 24, 1879, for the "founding and maintenance of schools of art and design, the formation and exhibition of collections of objects of art and the cultivation and extension of the arts of design by an appropriate means." The Institute is headed by a Board of Trustees of nineteen regular members and four ex-officio members including the Mayor of the City and three other members of the city government.

The School is supported by gifts and tuition fees. The tuition fee for the day classes is \$66.00 a term of twelve weeks for any full-time course. There are three terms in the school year, exclusive of the summer school.

Candidates for admission must be eighteen years of age and have had high-school education or its equivalent. Pupils not able to meet these conditions may enter Saturday or evening classes. A Certificate of Attainment is issued after the successful completion of three years in any course.

The day school is organized into a Lower, a Middle and an Upper School. All entering students are enrolled in the Lower School where a general course including life, design, still-life, color, perspective, lettering, composition, and a survey of art is given for one year. In the Middle School specialization in interior decorating, modeling, commercial art, illustration, and normal art is carried on. The Upper School for advanced students in fine art consists of a group of ateliers.

The following industrial art subjects are offered:

Design—Embraces interior decoration, period styles and methods of rendering, practical work in decorative projects, the techniques of batik, gesso, decorative painting, etc., an-

alysis of architecture, furniture design and construction. Extensive use of the museum and library. Figure drawing is continued during the entire course.

Pottery—Designing, throwing, casting, firing and the process of glazing.

Costume Design and Costume Illustration—Study of costume in its relation to the figure, and the rendering of costume designs for fashion plates.

Illustration—Applied to books and other projects.

Poster and Advertising Design—Practical training for commercial art. How “selling ideas” are thought out. Practical technique in poster making.

Lithography—Lithographic drawing with demonstrations in printing on the school press by a practical lithographic printer.

Etching, Blockprinting, etc.—Etching, drypoint, aquatint, soft-ground etching, wood and linoleum block cutting and printing on the school presses. Compositions from life are a part of this course.

Printing Arts—Printing, typesetting, design in relation to printed pages, lettering, composition, life, and study of processes of reproduction.

The industrial art courses offered in the evening and Saturday schools are Illustration and Lettering, Pottery, Costume Design, and Decorative Design.

There are eleven teachers giving instruction in industrial art courses. These do not include the drawing teachers. A few of these have had experience in commercial work, and one is performing commercial work at the present time.

There is some craft work in connection with the course in design. No designs or craft work are sold by the school. Except in connection with the lithography and printing classes, there are no committees or individuals from the trades co-operating with the school.

In 1921-22 the average number of students in the industrial art classes of the day school was 130. Twenty-five industrial art students received diplomas in 1921.

THE ART ACADEMY OF CINCINNATI

Cincinnati, Ohio

The Art Academy of Cincinnati, founded in 1869, is a department of the Museum Association. It is governed by a Board of Trustees of thirteen members, of which the Mayor is an ex-officio member.

The Academy provides opportunity for the training of professional artists in drawing, painting and sculpture, with the conviction that these subjects constitute the best foundation for expression in any form of art.

The tuition fee is \$80 per year for day classes and \$10 for evening classes. A large number of scholarships are made available through endowment funds which provide cash scholarships in addition to free tuition. In a few cases these cash scholarships amount each to as much as \$200 a year. There are no special requirements for admission.

The following applied art classes are provided: Illustration, Costume, Wood-carving, Decorative Design, Porcelain Painting, Metal and Leather Work, and Decorative Modeling. In preparation for decorative work the school offers drawing, and composition.

Evening classes include Drawing, Decorative Modeling, Composition and Design.

There is no fixed time in which a certain amount of work is to be done—the only test is the acquirement of skill. Certificates are issued stating what classes a student has attended and how long.

Four teachers give part-time instruction in applied art classes. Craft work is done in these classes. No designs are sold by the school and there is no direct cooperation with trade committees.

Many graduates are employed at the Rookwood Pottery and in the printing industries.

In 1921-22 the number of students in the classes of the day school was 280, and 98 in the evening school.

THE ART SCHOOL OF THE JOHN HERRON ART INSTITUTE

Indianapolis, Indiana

This school, founded in 1902, aims to train students either to become creators of artistic products or members of a discriminating and stimulating public. It is governed by a Board of Directors of twenty-five members. The fee for all day classes is \$1.30 a year, and \$30 a year for evening classes. One free scholarship is offered yearly to one candidate from each county in the state and one hundred and twenty-five scholarships are offered to the public-school children of Indianapolis. There are also a certain number of scholarships granted for meritorious work to students who have spent at least one year in the school.

The courses offered are Pictorial Art, Sculptural Art, Commercial Design, Illustration, a Teachers' Training Course and two junior courses for children.

Candidates for admission to industrial art courses must be sixteen years old. A high-school education is considered desirable but is not required.

In the courses in commercial design and illustration the first year's work is the same for all students and embraces the following subjects: drawing from cast and life, modeling, design, color, lettering, perspective, mechanical drawing, composition, still life, history of art.

Commercial Design—The work in the second, third and fourth years comprises the following subjects: drawing from cast and life, still life, design and lettering, show card designing, interior decoration relative to advertisement and posters, rendering in pen and ink, general commercial design, lectures on processes of reproduction, retouching of photographs, use of the air brush, use of gold leaf, decorative composition in black-and-white and color.

Illustration—Planned to equip the students for professional newspaper, magazine and book illustration. First year: Regular beginner's course. Second year: Same as second year

commercial design course. Third year: Drawing in charcoal and pastel, illustration, modeling and outdoor sketching. Fourth year: Figure sketching, study of historic costumes, composition and illustration.

The courses offered in the evening are similar to those of the day school.

Five teachers give instruction in industrial art classes, all of whom have had practical experience in the field in which they instruct. There is an advisory committee of men who are directly connected with engraving and advertising companies. There is a close contact maintained with practical trade relations by the teachers.

In 1922 there were 250 students in the industrial art courses.

SCHOOLS CONDUCTED AS PRIVATE ENTERPRISES

CHICAGO SCHOOL OF FINE ARTS

Chicago, Ill.

The Chicago Academy of Fine Arts aims to train students for art work in the field of industry and commerce. Day, evening, Saturday and Sunday, summer school and correspondence courses are offered. The school is supported entirely by tuition fees, which are \$40 a month or \$100 for three months for five full days a week; \$25 a month or \$65 for three months for five half-days a week. The rate for a ten months' season is \$350 for full-time day classes. The rates for three months in evening classes are \$15, in Saturday classes \$12, and in Sunday classes \$15.

There are no entrance requirements for admission to the elementary classes. The student is on probation during the first eight weeks of attendance, however. In order to enter the advanced classes, evidence must be given to show training sufficient to equal the first year of the Academy course. The courses are outlined for two and three school seasons of forty weeks each, five days a week.

The industrial art courses include: Commercial Art, Costume Designing, Draping and Making for the Clothing Industry; Design and Handicrafts in connection with interior decoration to prepare designers for the furniture, textile, jewelry, novelty, toy and kindred industries; Stage Setting, Lighting and costume Designing for the Theatre.

A preparatory course called the "Art Essentials Course" includes pictorial composition, elementary principles of advertising, the psychology of line and color, pictorial perspective, commercial lettering, merchandise drawing from objects and rendering in various media, sketching from costume figures, and academic nude life drawing.

Courses of study in the advanced industrial art classes are as follows:

Costume Design—The principles of line and color applied to dress designing; measure taking, fitting form preparation, draping, cutting, fitting, sewing, embroidering, batiking and pressing of sport and tailor suits, afternoon and evening dresses and theatrical costumes; the making of hats and dress accessories; embroidery designing; modern adaptations of period costume; sketching in color from models in historic dress; and anatomical construction and academic nude life drawing.

Commercial Drawing—Illustration in pen and ink, wash, tempera, water-color and oil, newspaper and magazine advertisement designing and illustration; color composition for posters, covers and booklets; designs for floats, booths, and window display; methods of reproduction.

Fashion Illustration—Sketching from domestic and imported models; history of costume; newspaper, magazine and catalogue illustration in pen-and-ink, wash and tempera; cover designing in color for fashion magazines and booklets; academic nude life drawing.

Industrial Art—Principles of balance, rhythm, harmony, etc., drawing from life, nature, historic periods. Advanced projects include experiments in improving the looks, and therefore the selling value, of various manufactures.

Interior Decoration—Instruction through demonstration and intensive personal instruction by practicing interior decorators.

Jewelry and Other Crafts—Designing and execution of jewelry, metal work, basketry, bookbinding, comb sawing, leather tooling, woodworking, gesso, lacquering, lamp shade making, batik, dress accessories, fan painting, etc.

Stage Design—Drawing, color, lighting effects, technique of water-color and dye, interior furnishing in periods, historic artistic costuming, symbolism and heraldry, characterization for makeup, estimating, materials, poster making; building of miniature sets.

There are eight courses in Commercial Art, Illustration, Dress Design and Interior Decoration.

There is a teaching staff of forty teachers, a large proportion of whom give instruction in applied art. All of these teachers are engaged in industrial art work in the commercial field.

There is craft work in connection with the courses in costume design and jewelry and other crafts. A Service Bureau is maintained by the school, which disposes of students' work, sometimes as high as \$12,000 worth being sold in a year.

There are no committees from the trades cooperating with the school, but the direction keeps actively in touch with industrial conditions.

In 1921-22 there were 125 students in the industrial art courses and 150 in commercial art courses of the day school and about equal numbers in the night school.

THE ART STUDENTS' LEAGUE

New York City

The Art Students' League was founded in 1875 by a group of students wishing to establish a school in which they could choose their own teachers and course of study. It is not an endowed institution and depends on tuitions for its support. A Board of Control is elected by the members of the league, which consists of twelve members the majority of whom are students working in the school. The board selects and engages instructors, conducts the management of the school and handles its finances.

Quality of work and personality admit to membership in the Art Students' League all students who have worked at least three months in any of its classes. Election to membership occurs at members' meetings which are held several times during the year. The Board of Control judges the work and personality of the proposed member.

In addition to classes in Drawing, Painting, Modeling, and Composition, there are classes in Illustration, Lithography and

Etching. Lectures are given on perspective, lettering, layout, design and general art subjects.

There are no entrance requirements but a student may be dropped if his work is of a poor standard, and the place filled from the waiting list. In some classes entrance is competitive. There is no required course of study and no certificates awarded; a student may choose his instructor and subject, limited only by the capacity of the class. The same subjects are given in the day and evening classes, except that the class in lithography is held only in the morning, and design, lettering, and layout are evening subjects.

There are twenty-three instructors in the school. They are all well-known artists in their lines and represent many varied viewpoints. Ten scholarships are awarded yearly to students from other art schools. The instructors, acting as jury, make the choice from the drawings submitted. No school may win more than three scholarships in one year. The holder of a scholarship is entitled to enter any two classes. The tuition varies from \$9 to \$15 a month for each class.

The enrollment of the year 1921-22 was 2,618. The lists of former students contain the names of many of the best known artists in the country.

NEW YORK SCHOOL OF FINE AND APPLIED ART

The aim of this school is to train teachers and professional workers in art applied to industrial and social life. A tuition fee of \$200 a season is charged, if paid in advance, or \$240 if paid in two installments. The purpose of the school is the development of taste and the practical application of drawing, color and design to the industrial arts. There are five permanent scholarships.

There are no entrance requirements except in the Teachers' Training Courses, where a high-school education is necessary.

The following industrial art courses are offered: Interior Architecture and Decoration, Graphic Advertising and Commercial Design, Costume Design and Costume Illustration,

and stage design. There is also a room with a studio for a student.

The Teachers' Training Course also studies the principles of practical decorative painting design and water colouring.

History of Art—The first year is devoted to the study of design as it may be applied to the first part and walls of the main decoration, and to literature and history of design. The second and third years are devoted to the study of design in relation to the history of art and to the study of the history of art.

Language Instruction—This subject is taught with the intention of giving the student a knowledge of the principles of design and of the principles of design and of the principles of design and of the principles of design.

Graphic Design—The first year is devoted to the study of the principles of design and to the study of the principles of design and to the study of the principles of design and to the study of the principles of design. In the second and third years practical designs are made both historic and modern designs are made. One branch aims to fit for technical magazine illustration, the other for practical dress construction. The latter course includes design of models in pattern and actual workroom technique.

Stage Design—This course combines stage costume with stage manipulation in connection with a small theatre model equipped for lighting, etc.

Craft work is done only in Teachers' Training Course.

The average number of students in the main courses are: Interior Decoration 130, Costume Design 140, Stage Design 20, Graphic Advertising 126, Illustration 50, Saturday Courses 112, "Hambidge Theory" Design Course 40, Landscape Architecture 10, preparatory course 40.

A session of six weeks is held in the summer for teachers and professional workers.

Of the forty-four instructors, thirty-six teach in the industrial art courses. Seventeen have had practical relations in the field in which they instruct, or are associated with the work.

The school has a large advisory and critical board from the trade, composed of representative persons from the fields in which instruction is given.

This school does not market designs, but they are sold by the students themselves or by competitions given to the school by the trade.

A considerable proportion of the graduates of the school have found places in the field of commercial industrial art.

The New York School of Fine and Applied Art has inaugurated a unique departure as regards American art instruction by opening a school in Paris for English-speaking students. The subjects taught are: Interior Architecture and Decoration, Stage Design and Costume Design, Illustrative and Poster Advertising. The full term extends from March 15th to December 1st.

Courses are arranged for different types of students: (1) advanced students who have studied one of the above named subjects for at least a year and a half in the New York school or have done the equivalent of this work in some other accredited institution; (2) students who have not studied before; (3) teachers of art and others who can be in France only six weeks or two months during July and August.

Four of the instructors from the faculty of the New York school teach in the Paris school.

SCHOOLS UNDER PUBLIC CONTROL

MASSACHUSETTS NORMAL ART SCHOOL

Boston, Mass.

The Massachusetts Normal Art School is a state institution for the training of art teachers and industrial art workers. It is administered by the Director of Art Education for the State. It is free to citizens of the State. Non-residents pay \$100 a year.

Boys must be seventeen and girls sixteen years of age to enter the school. A high-school education is required for the diploma.

Four-year industrial art courses offered are: Interior Decoration, Illustration, Costume Design, Commercial Design, Textile Design and Craft Design.

All first-year students study free-hand drawing, design, modeling, instrumental drawing, water-color values in charcoal and oil, English and history.

The instruction in the last three years in the industrial art courses deals with the following:

Interior Decoration—Interior design, antique, perspective, interior accessories, color analysis, sketching, rendering, French, English literature and history, interior decoration, period styles, fabrics, and thesis.

Costume Design—Design, antique, perspective, composition, oil painting, woodwork, modeling, French, English literature and history, life drawing, costume design, anatomy, color, laboratory, illustration, costumed model, thesis and eight weeks in costume establishment. The students enter dressmaking establishments where they are paid \$8 a week. They enter upon the same footing as other employees, working at the dressmaking table with the privilege, in many cases, of submitting designs and suggestions.

Illustration—Design, antique, perspective, composition, oil painting, woodwork, modeling, French, English literature

and history, general illustration, life, anatomy, color, laboratory work, reproductive processes, thesis.

Commercial Design and Craft Design—Same as above except that commercial design and craft design are substituted for general illustration.

In the evening classes instruction is given in free-hand drawing, printing art, design, interior decoration, costume design, life and instrumental drawing.

There are sixteen instructors in the industrial art classes, the majority of whom teach on a part-time basis and do practical work in art fields. There is at present little direct trade cooperation with committees, but considerable with individuals, especially in costume design.

There is craft work in connection with all design courses. The students' work is not marketed by the school but students have done designing and illustrating for prominent firms in Boston.

In 1922 there were 250 industrial art students in the school. The average number of graduates from industrial art courses is fifty.

SCHOOL OF ART AND INDUSTRY

Grand Rapids, Michigan

The Grand Rapids School of Art and Industry, established in 1916, is supported by the municipality of Grand Rapids and is controlled by the Board of Education. The school aims to train workers and believes that true appreciation and skill can be gained only through the solution of practical problems in the studio or workroom.

Residents of Grand Rapids are charged a yearly tuition fee of \$40 for the full course (six hours a day). Non-residents pay \$90 per year. The tuition in the night classes is \$10.00 a year. The school is closely allied with the Grand Rapids Junior College.

There are no educational requirements for admission, except that high-school graduation is considered desirable.

The following two-year industrial art courses are offered: *Decorative and Applied Design*, *Commercial Design and Sign-making*, *Molding and Carving*, *Home Arts and Crafts*, *Costume Design*, *Furniture Design*, *Design and Interior Decoration*.

The first year of training which is the same for all courses, comprises the following: Principles of drawing, lettering, design and color, analysis of historic industrial mechanical drawing and perspective drawing, history and bibliography. Upon the completion of this work the student specializes in some particular line of work.

The advanced work in the industrial art courses is as follows:

Decorative and Applied Design—Design is applied to wall paper, floor coverings, jewelry, lighting fixtures, tables, chairs and receptacles, window treatments, stage settings, theatrical set design, book-binding, furniture decoration, bookbinding, etc.

Commercial Design and Sign-making—Reproductive methods of printing, drawing various mechanical lettering, advertising design, illustrating, display making, posters and placards, color schemes, working drawings.

Molding and Carving—Molding, in relief and in the round, applied to furniture and metal industries.

Home Arts and Crafts—Costume and millinery design, home decoration, embroidery, jewelry, metal work, stenciling.

Furniture Design—Period styles, architectural drawing, cabinet-making, furniture design and rendering; modeling and carving; practical furniture design, practical furniture making.

The night classes aim to train workers for the furniture and printing industries and designers for different mechanical arts and industries.

Of the three teachers connected with the school two give full-time instruction and one gives part-time instruction in the industrial arts courses. Two of these instructors have had practical experience in the fields in which they teach and one maintains practical trade relations at the present time.

Practical work to the approximate amount of \$600 has been done by the students. Part of this money has been used for scholarships.

In 1921-22 there were fifty-nine students in the industrial art classes of the day school and twenty-seven in the evening classes. Diplomas were awarded to fourteen in 1921.

FAWCETT SCHOOL OF INDUSTRIAL ARTS Newark, N. J.

This school, founded in 1882, primarily an evening school operating under the Board of Education of Newark, aims to aid any worker in any field of industrial activity in his effort to develop originality and self-expression. The student body, especially of the evening classes, consists chiefly of men and women from the trades. No tuition fees are charged residents of Newark. Non-residents are required to pay a fee of \$30 for the school year, payable in advance.

There are no entrance requirements except that a student must be fifteen years or older.

The following industrial art courses are offered: Costume Design and Illustration, Design and Applied Arts, Arts and Crafts, Jewelry Design and Making, Die Cutting, Interior Decoration, Ceramics.

Costume Design and Illustration—Three evenings per week. Includes cast and life drawing, costumed model, color, methods of reproduction, perspective, newspaper advertising, fashion drawing for magazines and catalogues. In the fourth year the student specializes in one of these subjects.

Design and Applied Arts—Two evenings per week. First three years include—principles of design, color theory and general design of crafts. In the fourth year an opportunity is given to specialize in one of the crafts, such as needlework, batik, tied and dyed design, ceramics.

Arts and Crafts Course—Two and three evenings per week. Includes techniques of etching, piercing, forming, soldering, brazing and coloring metals, wood-carving, lamp construction, wax and clay modeling.

Jewelry Designing and Making—Two and three evenings per week. Design, historic treatment, designing for gold and platinum work, silver practices in construction of commercial jewelry. Individual instruction in specialized work. Engraving of plate work, mountings.

Die Cutting—Includes designing, machining, cutting of dies, stamps and punches. Trade methods are taught in this course.

Interior Decoration—Details types of furniture, color theory, principles of arrangement, stairways, entrances, drawings of various types of rooms in perspective, color schemes: perspective drawing and painting of rooms in period styles, furniture details.

Ceramics—Includes designing and arrangement of units, structural design, color study, application of color, stacking of kiln, firing of kiln.

Millinery—Two evenings per week; one year: Construction of a hat, making of ornaments, scheming of colors and the technique necessary in producing a trade hat.

The following industrial art courses are offered in the day sessions of the school: Batik or Textile; Arts and Crafts; Interior Decoration; Ceramics.

There is craft work in connection with the courses in industrial art. The school does not market the product of the students.

Of the thirty-five teachers connected with the school six give instruction in industrial art courses. These teachers are chosen almost entirely from persons who are actively engaged in the trades. They are in many instances heads of departments, superintendents and supervisors in their respective fields of work. There are no committees from the trades co-operating with the school.

In 1921-22 there were 213 students in the industrial art courses of the day school and 556 in the evening school. Diplomas were awarded in 1921 to 15 graduates from industrial art courses.

EVENING SCHOOL OF INDUSTRIAL ART

New York City

The purpose of the New York Evening School of Industrial Art, which is under the control of the Board of Education, is to provide free instruction in branches of drawing and design as applied to various art industries. Applicants for admission to classes must present evidence of fitness to take up the work for which they register. Workers in the trades requiring drawing, design and color are admitted as well as students who wish to specialize in any particular branch or phase of industrial art.

The classes meet four nights a week for two-hour sessions. Certificates are awarded to students who reach a creditable standard and have attended eighty per cent. of the sessions.

The following industrial art courses are offered: Costume Design, Interior Decoration, Jewelry, Commercial Advertising, Modeling, Textile and General Design, Stained-glass Design and Scenic Design.

Costume Design—Figure drawing, sketching from models, pictorial composition, catalogue and poster work.

Interior Decoration—Designing and rendering of interiors and accessories.

Jewelry Design—Technical training in melting metals, repoussé, chasing, etching, enameling and mounting, and application of design.

Poster and Advertising Design—Lettering and poster design with direct reference to reproduction.

Modeling—Historic ornament and original designs for terra cotta and stonework, for cast and wrought metal, for pottery with its decorative treatment, etc., enlarging and reducing processes, ceramics.

Textile Design—Designing of all-over patterns for machine and hand-printed fabrics; stenciling and wood-block printing.

Principles of Design—Decorative treatment of natural forms in their application to industrial art; conventionalization of lines and masses, color harmony.

Mural Decoration—The study of the figure (draped and nude models), composition, relation of architecture and painting, panels over mantels.

Stained-Glass Design—Mosaic and lead-glass decoration.

Scenic Design—Mechanics of the stage, lighting and history; stage-craft as applied to the speaking and the movie stage; pageants.

Craft work is done in jewelry, ceramics and hand-executed fabrics.

Nineteen teachers give instruction in industrial art classes, all of whom are professional workers.

The various industrial departments are developed in co-operation with committees of manufacturers. These committees offer practical suggestions as to the best development of designers for their respective industries and as many of these ideas as possible are incorporated in the courses.

In 1921-22 there was an average of 1,034 students attending industrial art courses. Certificates were awarded to ninety-nine.

WASHINGTON IRVING HIGH SCHOOL

New York City

This school is a public high-school for girls, supported by the City of New York and controlled by the Board of Education. The art work is carried on in an art department, directed by a department head or chairman who is under the supervision of the City Director of Art. The course in industrial art, which is a three year course with an optional fourth year, aims to train girls to become industrial designers.

Requirements for admission to the industrial art courses are graduation from an elementary school and talent in drawing.

During the first year in the high-school the pupils follow a general high-school course, devoting six periods a week to drawing and design. At the end of the year, the student begins an intensive study of these subjects, devoting two-thirds of her time to them. At the end of this second year the student

is given an opportunity to choose between the following courses: Commercial Design, Costume Illustration and Textile Design. The art work in these courses is as follows:

Costume Design—Study and practice of commercial lettering; sketches and design units suitable for reproduction in black-and-white illustration; illustrated advertisements suitable for newspaper and magazine work, in black-and-white; general commercial work; gift cards, menus, labels, poster stamps, tags, etc.; general decorative work applied to furniture, box tops, trays, boxes, covers, etc.; simple posters in color.

Costume Illustration—Figure study from model and cast, anatomy; costume sketching and illustration applied to newspaper work, fashion periodicals, pattern and catalogue illustrations, dressmakers and manufacturers' sketching.

Textile Design—Study of historic ornament and work in museums; theory and principles of design as applied to textiles; technical work in planning underlays and repeats of patterns; methods of reproduction, supplemented by visits to manufacturing firms; specialized work in planning patterns for woven fabrics and patterns for printed shirtings, silk, cretonnes, etc.

There are seventeen teachers giving full time in the industrial art courses. All of the instructors have made personal study of the industrial arts taught in the school and some are performing commercial work at the present time.

There are no official committees from the trades cooperating with the school, but close contact with the commercial situation is insured by continual visits of the teachers to trade establishments and by similar visits of trade designers to the school. Two teachers in the design courses are continuously assigned to the study of conditions in the trade.

The craft work in connection with the study of design includes embroidery, weaving, stenciling, wood-block printing. Textile designs made by the students are sold to various firms and sales are also made of the designs shown in the exhibition each year.

The average number of industrial art students in 1921-22 was 806. Diplomas were awarded to 142 graduates from the industrial art courses in 1921.

A list of firms employing graduates of Washington Irving High School as designers shows a large number of commercial design studios, interior decorating establishments, costume designers, and textile manufacturers.

THE SCHOOL OF INDUSTRIAL ARTS

Trenton, N. J.

The school was established in 1898 under a state act "providing for the establishment of schools for industrial education." It is supported by the State of New Jersey and the City of Trenton, and is in charge of a "Board of Trustees of schools for industrial education for the City of Trenton," appointed by the Governor of the State. The Governor of New Jersey and the Mayor of the City of Trenton serve on the board as ex-officio members.

Tuition fees to residents of New Jersey range from \$2 to \$25 per year, according to the number of courses pursued. Non-residents are charged three times the fees charged residents. There are no particular requirements for admission.

Courses in industrial art are as follows:

Artisan Course—Four years (either day or evening). Comprises work in the following subjects: First year—clayworking, ornament, free-hand drawing, designing, mechanical drawing; Second year—woodworking, ornament, designing, mechanical drawing including perspective; Third year—woodworking, clayworking, advanced mechanical drawing or architectural design, designing, history of art. The work of the fourth year is devoted to the execution of a piece of applied art in clay, wood, or metal, or a combination of these materials, in which artistic quality and technical workmanship are given equal weight.

Classes are organized in the following industrial art subjects. These are not necessarily separate classes, as often several groups work under the direction of one instructor.

Afternoon and evening classes—designing, home decoration, modeling, mechanical perspective for students of illustration and interior decoration, portraiture, pottery. Evening classes—pen drawing, poster classes, show-card writing, woodworking.

There is craft work in connection with the study of design in modeling, pottery, home decoration, dressmaking and millinery and in wood and ironworking.

There are forty-three instructors in industrial art subjects. Twenty-five of these maintain practical relations with the field in which they instruct.

No trade committees are reported as cooperating with the school and no sales department is maintained.

In 1921-22 there were 292 students in the industrial art classes of the day school, 887 in evening industrial art classes. and 47 in both day and evening classes. Diplomas were awarded in 1921 to fifty graduates from industrial art courses.

NEW YORK TEXTILE HIGH SCHOOL

New York City

Upon the recommendation of various organizations and establishments connected with the textile industry, the New York City Board of Education established in 1919 a Textile High School to meet the needs of this industry. It is a free school, supported by the City. Several cash scholarships or money prizes of from \$150 to \$200 are offered by manufacturers to worthy students in design.

Boys and girls, sixteen years of age, who have completed satisfactorily the first two years of high-school and who have a knowledge of free-hand drawing are admitted to the regular courses of two years. Graduates of junior high-schools and pupils who have completed one year of high-school are eligible to enter the preparatory course of the school. The student is placed on probation for the first five months.

There are two design courses—Applied Textile Design and Costume Design. Other courses, in all of which there is some work in design, are as follows: General Textiles; Marketing of Textiles; Textile Manufacture and Engineering; Chemistry

and Dyeing. Certain academic subjects are required in all of the courses. Pupils who pass the Regents' examinations in these subjects receive, in addition to the regular school diploma, a Regents' high-school diploma in academic and technical subjects.

Costume Design—Includes costume sketching, color harmony, costume design, draping, cutting, pattern cutting and grading, fashion illustration and instruction in dress materials.

Applied Textile Design—Includes work in printed and woven textile design and the actual placing of these designs on fabrics.

Affiliated with this school is an Evening Textile School for men and women engaged in the trade. The industrial art courses offered are—Applied Textile Design and Costume Design.

There are three teachers of applied art in the day school who give full time to this work. They have had practical experience in the field in which they instruct and do some freelance work at the present time.

In the evening school there are five instructors in the design courses. These teachers have all had over ten years of practical trade experience and are employed during the day in the industries in which they instruct.

There is craft work in connection with the instruction in design. No products are sold through the school organization, but some are sold by individual students.

There is very close cooperation between the school and the trade. Some of the organizations which act in an advisory capacity are the Waist League, Upholstery Association of America, the Silk Association, Sweater and Knit Goods Association, Clothiers' Association, Cotton Converters Association, Finishers Association, Federation of Art Societies, Museum of French Art.

In 1922 there were 730 students in the day school, distributed as follows: Applied Textile Design, 65; Costume Design, 175; General Textiles, 140; Marketing of Textiles, 225; Textile Manufacture and Engineering, 50; Chemistry and Dye-

ing, 75. The school is too young to furnish data regarding the subsequent careers of graduates.

OTHER TEXTILE SCHOOLS

In addition to the New York Textile School and the textile departments of the Pennsylvania Museum and School of Industrial Art and the Rhode Island School of Design there are a number of textile schools in which a limited amount of instruction in textile design is provided.

Among these are the three state-supported schools in Massachusetts—the Lowell Textile School, The Bradford Durfee Textile School at Fall River, and the New Bedford Textile School.

These institutions give little attention to the artistic side of textile design but fabric design or the production of the various cloth weaves is studied thoroughly.

Such schools train men mainly for positions on the mechanical side of textile production, and such graduates as take positions in the designing houses of the mills are called upon mainly to adapt designs sent in by converters and commission houses to the requirements of the looms. In only one school, the Bradford Durfee School, is instruction in this field carried far enough to equip a textile designer for any creative work.

In this school the two years' course in Designing and Weaving includes instruction in designing and cloth analysis, weaving and free-hand drawing.

Instruction in free-hand drawing is mainly devoted to a study of ornament as applied to textile decoration.

MANHATTAN TRADE SCHOOL FOR GIRLS

New York City

This school, supported by the City of New York and controlled by the Board of Education, aims to train girls who wish to prepare for entering the trades. No tuition fees are charged. Girls fifteen years old or over who are graduates of elementary schools are admitted. Girls who are not grad-

uates of elementary schools, but who have completed the requirements for working papers, are admitted only when there are vacancies.

The trades taught are: Dressmaking; millinery; making of flowers and feathers, lamp shades, novelties; sample mounting; operation of garment machine, straw-hat machine, embroidery machine; manicuring and shampooing.

The course leading to a diploma extends over two years. About one half of the instruction time is devoted to trade practice. Three hours a week are given to art instruction or industrial design. If an entering student shows any marked talent for drawing or designing, she is transferred to some other school where this work is given special attention. One-half of the time is given to general and related subjects such as English, arithmetic, textiles, civics, industrial design, hygiene and physical training, and a certain amount of cooking and laundry work designed to make girls more useful in their homes. Diplomas are awarded in January to all girls who have completed the course and been placed in the trade for at least three months.

There are about fifty full-time teachers who have had at least five years' trade experience. The school maintains contact with the trade through its placement secretary, also through cooperation with individuals in various industries.

There is craft work in all classes. An attractive salesroom with large display windows where the work of the students is sold is maintained by the school. A very limited amount of order work is also taken. The money derived from the sales covers the entire cost of materials, textbooks, office and academic supplies, but not the salaries of the teachers nor the maintenance of the building.

There are from 1,000 to 1,200 students in the school constantly. From fifty to sixty per cent. of the girls complete some one of the courses and are placed by the placement secretary. About forty per cent. of the girls take up dressmaking, fifteen per cent. millinery, twenty per cent. clothing operating trades, and twenty-five per cent. miscellaneous.

SPECIAL SCHOOLS OR CLASSES

MITCHELL DESIGNING SCHOOL

New York City

This school was established in 1873. It is maintained by a private corporation affiliated with the Mitchell Publications, which include The American Ladies' Tailor, The Sartorial Art Journal, and the American Furrier. The work of the school consists in teaching pattern drafting for men's and women's tailored garments. The course requires three months or a year, depending upon the ability and experience of the student. Two-thirds of the time is given to pattern drafting and one-third to draping and grading. A valuable and comprehensive collection of fashion books and plates is at the disposition of students.

Only persons in the tailoring trades are admitted. Enrollment is reported as between 200 and 300 students a year. The teachers are all practical men, having been trained in the school for one year before they are allowed to instruct. The students execute their work in paper and when sufficiently advanced make garments for their own use. It is stated that practically all graduates enter establishments as designers or cutters.

AUTHENTIC STUDIOS

BROWN'S SALON STUDIOS

FASHION ACADEMY

MCDOWELL DRESSMAKING AND MILLINERY SCHOOL

New York City

The above represent private institutions in New York City giving some or all of the following courses: Costume Design, Cutting, Fitting, Draping, Pattern Drafting, Costume Illustration, Dressmaking and Millinery.

Tuition fees which are generally charged for the special course, range from \$30 to \$225 a course. Some of the schools report enrollments ranging from 300 to 600 yearly.

Designs and models are made and sold to the trade in each of the schools by instructors or students or both.

A large percentage of the graduates are reported to obtain positions in the trade or to be engaged as free-lance designers.

THE SCHOOL OF PRINTING AND GRAPHIC ARTS WENTWORTH INSTITUTE

Boston, Mass.

The School of Printing and Graphic Arts, opened in 1916, is a department of Wentworth Institute, an endowed institution controlled by a board of directors. The principal of the Institute is the executive head. Each division of the School of Printing and Graphic Arts has its own department head.

The tuition fees are thirty dollars a year for day classes and ten dollars for the evening classes.

The day courses offered in Printing and Graphic Arts, are: first, one-year day courses of apprenticeship grade for persons who wish to become skilled workmen in composition, presswork, or photo-engraving; and second, a two-year course in Printing and Graphic Arts for those who wish to train themselves for advanced positions in the printing or publishing industry, or for persons who wish to become superior and artistic compositors, layout men, or designers of fine printing. In addition to these full-time day courses, there are special part-time courses in etching, designing, hand engraving and color printing for artists and others. There are also part-time day courses for apprentices employed in printing shops in Boston and vicinity and evening courses intended for young men who are already employed in the trades.

The one-year printing course includes hand composition, stonework, presswork, English, proof-reading, applied mathematics, drafting, lettering, layout design, use of colors, applied science for printers and talks on processes and materials.

The one-year course in photo-engraving includes making of wet and dry negatives, printing on metal, etching, engraving, re-etching, proving, routing, blocking, English, applied mathematics, drafting and practical talks.

The first year of the two-year course in Printing and Graphic Arts covers the ground of the one-year course in printing and in addition includes more advanced work in printing and applied art, history of printing, etc. In the second year there is a course in design and color work which deals with advanced instruction in layouts, study of type and original designs, and advanced study of color and color processes. There is also a course in photographic processes and one in advanced shop practice.

Of the four instructors in shop practices all have had practical experience.

Craft work is done in the making of books, folders, posters, etc. Orders are sometimes executed but the school has no sales department.

A committee on apprentices from the Boston Typothetae and the United Typothetae of America cooperate in an advisory capacity. There is a similar relationship with the employing photo-engravers.

In 1921-22 there were sixty-four day students in the printing course and 111 in the evening. Thirty-five received diplomas in the day course.

OTHER PRINTING SCHOOLS

Besides the printing departments at the Carnegie Institute and the Wentworth Institute previously described, trade instruction in printing is given at several schools in which a certain amount of attention to design is involved. Among these is the School of Printing maintained by the United Typothetae of America, at Indianapolis. This school is operated by the above-named employers' organization and directed by a Committee on Education. The city of Indianapolis has furnished the buildings, and provides light, power and heat. The manufacturers have donated the machinery.

The aim of the school is to develop higher efficiency and better craftsmanship among journeymen and to train young men in mechanical processes, materials, office system, estimating, accounting and principles of management as a basis for executive positions. The tuition fee for the general course of eighty weeks is \$300. Certain elective courses in design are provided, the object of which is to develop a taste in the use of type and page arrangement. These courses are as follows: Principles of Design—four weeks, four hours a week; Color—four weeks, five hours a week. There is also a course in Design Layout and Composing Room Management—four weeks, 160 hours. This is a special course for the executive, salesman, office man and high-class compositor.

The Ohio Mechanics Institute of Cincinnati maintains a Department of Lithography. A two-years course is provided, the object of which is to train lithographers. The course deals mainly with the technique of work on the stone. A certain amount of instruction in design is included in the course but not of sufficient amount to train artists. The tuition fee is \$100 per year. A cooperative course is also maintained by the department in which the students study at the Institute and obtain practical experience with a lithographic firm by two-week intervals. This course consists of two years of work, twelve months per year. The student, while at work with the lithographic firm, is a regular employee and receives wages depending upon his ability.

NEW YORK STATE SCHOOL OF CLAY WORKING
AND CERAMICS
AT ALFRED UNIVERSITY,
Alfred, N. Y.

This school, founded in 1900 for the purpose of training ceramic engineers and producers of high-grade ceramic wares, is a department of Alfred University. It is controlled by a Board of Managers which is appointed annually by the Trustees of the University. The school is in the immediate charge of a director.

Tuition is free to residents of New York State. In addition to laboratory, matriculation and miscellaneous fees and deposits, non-residents are charged a tuition fee of \$35 per term, for the regular course of seventeen hours per week. Students taking more than seventeen hours are charged \$3 for each additional hour, and those taking fewer than eight hours are charged \$3 for each hour.

Candidates for admission must be at least sixteen years and must possess the equivalent of a high-school education.

A four-year course in Applied Art leading to a degree is offered. This course includes instruction in drawing, modeling, design, ceramic craft, composition, English, modern language, chemistry, physical training, ethics and history of art. In the junior and senior years the student is allowed electives which may be utilized in the department of education and in further study in college subjects or in additional craft work. A course in "Textile Crafts" may be elected which comprises a comprehensive study of textiles.

The work in the applied art courses is as follows:

Modeling—Production of pottery by hand building, wheel work; plaster forms and molds, casting vase forms, tile making; glaze preparation and use; processes of pottery decoration, incising, embossing, slip treatment, inlaid glazes, kiln management and firing; modeling for structural wares; production of original work.

Ceramic Craft—Production of pottery with special reference to commercial problems, economy of production, kiln management and mold making, the problem of the salesroom and private studio.

Design—First year, design and color theory. Second year, design and color in relation to pottery, block printing and batik. Third year, continuation of second year. Fourth year, thesis problems.

Composition—Study of the laws of composition. The use of the figure in decorative modeling. Unusual decorative processes for pottery. Fourth year.

Four teachers give instruction in the industrial art courses.

All of these teachers are capable of doing commercial work, and they often sell pieces of their work through the Guild, an organization carried on by the institution for mutual benefit of students and faculty.

There is craft work in connection with the study of design in all of the design subjects. Considerable of this work and some designs are sold through the Guild. Before articles are offered for sale they must be accepted by a jury which passes on all products.

There is some cooperation with committees or individuals from the trades.

None of the former graduates are reported as engaged in industrial design in commercial establishments. Many of them, however, are employed in studio work and others in free-lance designing.

In 1921-22 there were twenty-seven students in the Applied Art Course. Diplomas were awarded to five graduates from this course in 1921. Seventy-five per cent. of the students in the school take the Ceramic Engineering Course.

SUMMARY

As has been suggested before, it is clear that the American schools offering instruction in applied art that may be considered as broad, thorough and at the same time practical, are but few in number.

Certain facts developed from the studies of the fifty-eight schools that were visited by staff representatives are of some significance in regard to the situation as a whole. In the first place, it is clear that there is little represented by the organization or methods of many schools that is calculated to bring a knowledge of the practical requirements of a definite field of design before the students. In a number of such schools the instructors in applied design have had no contact with commercial work through practical experience, nor, on the other hand, are they maintaining any contact at the present time with the commercial situation through the making of designs or illustrative material for trade purposes. Further-

more, comparatively few schools in the country have relations either with individual advisers or advisory committees from the trades.

Competent knowledge of trade conditions may be brought to bear upon class instruction in one of several ways. It may be insured by the practical experience and trade contacts of the instructors or it may be insured through committees or individuals acting as advisers. But it is clear that in many schools of the country, work in applied design is being given not only by instructors who have had no practical experience and are maintaining no commercial contacts, but where there is no provision for gaining the practical point of view from committees or individuals. This is undoubtedly a weakness of our present situation and one that must be remedied if our schools are to perform their part in training workers to take practical part in American industries and assist in forwarding the standards of these industries.

While this point can hardly receive too strong an emphasis, it is necessary to state with equal force that this should not mean the subordination of breadth of culture to narrow trade instruction. Two problems face the schools of applied art: (1) to provide a sound and liberal art education, and (2) to bring that education into practical relation with commercial requirements. Both are equally essential if the schools are to do their share in the task of advancing the standards of American industrial art.

Opinions given by school authorities as to the desirable length of day-school courses in the applied arts are as follows: of the schools under private auspices four mention two years and one, three years; opinions expressed from the other schools vary from two to three years as the desirable extent of such courses, to four to five years. The largest number mention three years, three to four years, or four years.

The large majority of school representatives recommend that a general course be given first which should include drawing, the principles of design and cultural subjects, to be followed by specialized work in some particular field. The

representatives of only three institutions favor the practice of bringing the student from the first into contact with the problems and material of the chosen field of design. In spite of this preponderance of opinion, it may be permissible to point out that there is much to be said as to the value of dealing from the first stages of art-school training with the material and aspects of the elected field of design as a means both of cultural and special instruction. Drawing and painting are, after all, but tools of workmanship; composition and design for specific purposes are the ends to be sought. Every consideration in regard to holding and stimulating the interest of the workers would seem to incline toward the continuous use of material and principles related to the special fields of industrial art toward which the student is aiming.

John Dewey has said that the way to prepare for life is through life itself, and his greatest contribution to educational thought is perhaps the principle that the mastery of the tools of communication can best be gained as an incident in dealing with situations of real social interest to the pupil. Much of our educational practice has been based on the idea of acquiring certain skills through abstract drills with the idea that these will later be put into application. Today we are beginning to feel that for mere drill should be substituted activities that possess a meaning and a motive to the learner. The question seems worth raising whether a more serious consideration of this principle might not lead to greater vitalization of much of our art-school instruction in the fields of drawing and other subject matter commonly treated as mere preparation.

Another consideration that arises from the school studies is the quality of the young people who enter the day art schools of the country. As a general rule the entrance requirements of such schools allow the enrollment of any applicant over the age of sixteen or seventeen who desires to study art.

Rigid entrance examinations so often required in the case of the higher schools of applied art in Europe are missing. This situation, allows the admission of many students pos-

sessing neither seriousness of purpose nor promise of talent. Under present conditions of supply and demand it is difficult to see how the entrance requirements of many schools of the country can be made more selective, but it can hardly be gainsaid that lack of strong quality in our art students constitutes a decided weakness in the present situation—a weakness which it is to be hoped the strongest of our institutions will find themselves able to remedy gradually by raising their standards of admission. Such an increase in standards of admission, it is hardly necessary to say, should not be through the imposition of academic requirements, but through the development of methods which will assure a higher standard of artistic promise.

The effect of a poor quality of student is not only felt in the earlier stages of art-school work but, inasmuch as many such remain in the school more as a matter of pastime than for hard work, they are often a drag throughout the entire course, particularly in the later stages. Since truly effective instruction in advanced classes must be largely an individual matter, small classes, unencumbered by weak and ill adapted material, are here an essential condition for satisfactory work.

Scholarship provisions in the American schools of art have been but little developed. A few schools, the Pennsylvania Museum and School of Industrial Art, the Rhode Island School of Design, and the Maryland Institute, although organized on private foundations, receive money grants in the form of scholarships from the states and cities in which they are located. In the case of the Pennsylvania Museum School, the amount contributed from each source is substantial, amounting to \$56,250 from the state and \$30,000 from the city. In only a few of the schools have scholarship provisions been made by the manufacturers. Among schools receiving such scholarships are the Rhode Island School of Design, Wentworth Institute of Boston, and the Mechanics Institute of Cincinnati.

An important movement in this direction is represented by the activities of the School Art League of New York City.

The League provides a number of scholarships (thirty-five during the year 1921-22) which are awarded to students in the high-schools of the city in order to allow them to continue their studies in one of the art schools of the city. In carrying out this plan, the schools have reduced their tuition for these scholarship students, leaving only a fraction of the expense to be borne by the League.

INDUSTRIAL ART EDUCATION IN EUROPE

INSTRUCTION IN APPLIED ART IN ENGLAND

At various periods during the last century English public opinion became conscious of the inferiority of native artistic goods when compared with continental products, and demanded that educational measures be developed to overcome the deficiency. In the early part of the last century the cry was first heard, and resulted in the establishment of schools of art, but it was not until 1835 that the first governmental inquiry into the condition of English manufactures was set on foot. In that year a committee was appointed "to inquire into the best means of extending a knowledge of the arts and of the principles of design among the people, (especially the manufacturing population) of the country; and also to inquire into the constitution, management, and efforts of institutions connected with the arts." The report of the committee resulted in the establishment of the School of Design (now the Royal College of Art), which has played a dominant rôle in art education in England.

In 1840 the government extended its assistance to the manufacturing districts, and authorized a grant of £10,000 towards the formation and outfit of schools of design in the large towns.

In 1851 the International Exposition in Kensington brought home to the public in a larger way than ever before the artistic inferiority of English products. This led to the reorganization and considerable expansion of the School of Design. Another result was the introduction of craft work into this school and later into other schools. By the time of the Exhibition of 1862 a marked improvement was observed in the artistic industries.

From this time until the present the efforts of those inter-

ested in the furtherance of art education have been directed towards evolving an organization based upon central governmental control, the creation of an effective curriculum and a system of governmental pecuniary aid to art schools and classes.

The report of the committee of 1835 suggested pecuniary aid be given by the government to encourage art instruction. This suggestion resulted after 1851 in a system peculiar to English school administration and known as "grants in aid" which has had a marked influence upon art instruction in England. As originally instituted, it consisted in granting to each school or class giving instruction in the arts and sciences an amount of money based upon certain conditions. In general these conditions required that the school should meet certain requirements in equipment and enrollment, should not be conducted for private profit, must have an adequate and efficient teaching staff, that satisfactory progress must be shown by the pupils, and that the curriculum must be adapted to the conditions of the locality and must be approved by the national central body of control—now the Board of Education. The Board has supervision of all school work in the kingdom.

The more specific requirements were that the rates payable should be determined by the Board upon consideration of the subjects taught, the extent to which organized and continuous courses of instruction were effectively carried out, the qualifications of the teacher, and a minimum requirement of attendance upon the pupil's part. The ordinary rate of grant was 2s. 6d. to 3s. 6d. per pupil, which rate might be increased up to 15s. for special excellence.

In administering this particular branch the Board of Education employs a staff of inspectors. These inspectors visit the classes annually, make note to the extent to which the requirements of the Board are being met and check up the attendance records. Formerly during a certain period of each year throughout the kingdom examinations were held in each class according to a syllabus sent out by the Board.

These examinations were conducted under conditions of strict local supervision and the exercises were sent to London to be rated and these ratings formed the chief basis upon which grants were made.

In recent years a better method of estimating the amount of grants than that outlined above has been put into effect. An inclusive annual grant is now paid by the Board. It was first based upon the average amount of the grants received by the school for the last three years under the old method. The rate is now assessed every three or four years upon the results of annual and special "full" inspections. The assessment is based upon the work and attendance record of a class as a whole instead of upon the old examination basis of individual students. This system has completely supplanted the older method.

The grants by Parliament of pecuniary aid to art instruction were first made with the hope that this would be a temporary measure and that the schools would become self-supporting. This did not prove to be the case, and it is now felt that this is hardly desirable, as the schools would then be without government control. It is held that, while such control may at times be injudiciously directed, it at least gives a broader support to instruction which would otherwise be limited to local appreciation and even caprice.

This policy of pecuniary aid has resulted in bringing art instruction to a large number of workers and craftsmen as well as amateurs in contradistinction to the policy of the continental art schools which seek to develop a select class of designers. Of the large numbers receiving art instruction a considerable proportion—at one time estimated at twenty-five per cent.—are women amateurs. This large proportion is not considered a misdirection of effort inasmuch as such students may introduce a leaven of art appreciation in the purchasing public.

An element of much importance in maintaining high standards in the schools of art and in keeping them in touch with the demands of industry is the inspection and report made to

the Board of Education upon each school, once in three or four years, by a group of inspectors. This group consists of several members of the regular Inspection Staff of the Board of Education, joined with persons prominent in the fine and applied arts. Reports made by these committees are very careful and comprehensive. They are critical and suggestive in nature and provide a valuable opportunity for bringing expert opinion of the highest order to bear upon the work of the schools.

The formation of local advisory committees is encouraged by the Board and they are now very generally organized. Such committees inspect the work of the classes at frequent intervals during the year and confer with the directing officers regarding the same.

Drawing is taught in all elementary schools throughout England under the supervision of the Board of Education, which issues syllabi, thus tending towards uniformity of instruction throughout the kingdom. The motive is to teach children to see correctly, to draw carefully what they see, and to cultivate their sense of beauty. The time given to the subject is from one hour per week in the earlier grades to elective opportunities of three hours per week in the higher grades. No special equipment is provided except in the higher grades in the large cities, where special rooms are assigned. In the smaller schools the work is conducted by the regular class teacher or by a peripatetic teacher. In the larger cities special drawing teachers are employed. The work is now coordinated with handicrafts. Few textbooks are used, but the work is based upon a syllabus issued by the Board of Education or upon a syllabus prepared by the school authorities and approved by the Board. The 1918 Report of the Education Committee of London notes that "the work of the earlier part of the period manifests a strong reaction against the symmetrical pencil drawings of former days. Drawing from the object with crayon and brush became universal, and was regarded by some as the only legitimate form of art instruction. This narrow view is gradually being discarded and a

wider and more varied art syllabus, including simple designs and the despised pencil work, is now being followed."

Drawing of plants and flowers and other objects of nature now enter largely into the work given in the elementary schools. The classes in day schools number more women than men, whereas in evening classes the greater number are young men.

A considerable number of the art teachers of England receive their training at the Royal College of Art and are, therefore, well equipped with technical knowledge and artistic judgment. The fact that this college is largely recruited through scholarships tends to produce a body of students possessing art ability above the average. As the training given at the college is very thorough, there results an efficient body of teachers for supplying the needs of instruction in the art schools of the country. Details of the methods and courses pursued at the Royal College of Arts are given elsewhere in this report.

The scheme of "art-pupil teachers" pursued in the schools of the country works to advantage in two ways: it gives the pupil a chance to develop his powers by practical experience and it also affords a supply of elementary art teachers to local schools. The art-pupil teacher is required to devote not more than one-third of his time to teaching and the remainder to his studies. One-half of his salary as a teacher is paid by the Board of Education and one-half by the local authority.

Since the founding of the Royal College of Art industrial art training has been considered of increasing importance and the large number of art schools and classes, and schools of arts and crafts attest to the recognition of this practical need and indicate the importance of these institutions in supplying training to designers, craftsmen and teachers.

The technical instructors in some of the schools are practical men recruited from the industries. The students are drawn from all the various social and industrial strata of English life. They enter upon their studies at ages varying from twelve to twenty-five years. In most schools no previous

preparation is demanded, but the pupil must possess a sufficient general knowledge to profit by the instruction given.

The aim of most English arts and crafts schools, "to make the workman a better workman," has been largely realized. There is still some tendency to consider the machine as an enemy to the production of anything beautiful, an attitude which is being combated by attempts to give the pupils a more complete knowledge of modern machine possibilities and requirements. In 1916 the Board of Education formulated and issued a special scheme to organize instruction in these matters.

An estimate of the distribution of the graduates can hardly be made, as few of the schools keep records of the subsequent occupations of their graduates, though the practice of keeping such records is growing. Unquestionably the graduates of these schools form a large percentage of the designers in the industries.

The arts and crafts movement as typified by the Arts and Crafts Society has had little influence upon raising the general level of design of ordinary commercial goods. Its main result has been to stimulate a comparatively small group of men and women to produce "applied art," such as stained-glass windows, work in silver, needlework, book-binding and the like, but at this point the movement has apparently stopped. This, it may be noted, is in contrast with the history of such work in Germany, where through government encouragement and liberal expenditure of money, instruction in the arts and crafts is not only carried on very effectively in the schools but, what is more important, exerts a very large influence in the production of the factory and the workshop.

As possibly indicative of the current trend in England, attention is called to the action of the municipal educational authorities of Leeds, who specifically require that all art education in the schools of the city must have for its purpose the advancement of the industrial arts.

A considerable use is made of art material in museums.

These institutions are of a high standard, those of London being specially noteworthy. There are also good collections to be found in many schools.

The Board of Education has made a practice for many years of sending on loan from the Victoria and Albert Museum collections of examples to art classes which practice it is now extending to secondary schools throughout the kingdom.

The methods employed in most applied-art schools are excellent and progressive and lead one to expect sound results from the pupils.

London has a number of excellent applied-art schools, among which the Royal College of Art, the Central School of Arts and Crafts, and Camberwell School of Arts and Crafts rank first and exert a widespread influence. Some of the larger cities also conduct schools of marked excellence. All of these schools are finely equipped for their purpose, ably staffed, and well conducted.

According to the Report of the Board of Education for 1919-20, there were in England 183 schools of art, nineteen branch schools of art, and forty-six art classes working under the Board's regulations. Proposals for special courses in design applied to manufacturers are constantly being received by the Board.

The attitude of the English manufacturer towards art training has generally been one of indifference and, at its worst, one of open hostility. There are, however, a number of far-seeing manufacturers who are convinced of the practical value of industrial art education and who give whole-hearted support and cooperation. In a number of industries manufacturers have long seen the need for better art training of their young people and have developed relations with the schools for this purpose.

At the outbreak of the war, plans were being formulated to remodel the scheme of arts-and-crafts education and place it upon a basis to meet more effectively the competition of continental methods, more especially those of Germany. The conviction had again taken hold that the position occupied by

England in certain crafts and manufactures was being successfully disputed by Germany. One result of this feeling was the formation, in 1915, of the Design and Industries Association. This appears to be a serious attempt to enlist the cooperation of manufacturers, artists, designers, and art educators in placing English industrial art upon a higher plane.

The immediate realization of the plans for improvement referred to above was interfered with by war conditions, but present indications are that earnest efforts are being made towards increasing the practical application and efficiency of industrial art education.

The conditions surrounding the use of designs in industry are somewhat similar to those existing in the United States. A large number of designs, especially those for cotton prints, are imported from France. Some large firms have designing offices in Paris employing French designers. The proportion of free-lance designers to those employed steadily is approximately estimated at ten per cent. Free-lance designers, if at all successful, receive a high compensation for their labor.

The local educational administrative authority in England is commonly invested in Education Committees which generally work through a number of sub-committees.

The method followed by the County of London is that generally in use in other cities of the kingdom.

The London County Council is the local authority responsible for promoting and coordinating all forms of education within the County of London. Practically the whole of elementary education in London is under the Council's control. In the various branches of higher education the Council is associated with several other authorities, such as the University of London, the City Companies, the governing bodies of endowed secondary schools and the governing bodies of polytechnics and technical institutes. In the promotion of the different forms of education it is the object of the Council to work in cooperation with the other agencies that are engaged in educational work and to make sure that there is no overlapping or duplication of effort. The Council works

throughout in close association with the Board of Education, which is the central authority entrusted by Parliament with the duty of the supervision of education throughout the country.

All matters relating to the exercise of the Council's powers under the Education Acts, except the power of raising a rate or borrowing money, stand referred by statute to the Education Committee of the Council.

A large share of the work of technical and art instruction is carried on in polytechnic and technical institutes, which may be divided into three classes:

- (1) Those aided by the London County Council.
- (2) Those maintained by the London County Council.
- (3) Those receiving no aid from the London County Council.

The institutions vary greatly in size. Thus, the Regent Street Polytechnic in normal times has over 12,000 students and receives a maintenance grant from the Council amounting to £14,200 a year, while one or two of the institutions have less than one hundred students and receive correspondingly smaller grants from the Council.

The institutions aided by the Council receive from it building, equipment and maintenance grants. Apart from the financial assistance given by the Council, their income is made up of Board of Education grants, endowments, grants from the City Parochial Foundation, students' fees, and voluntary subscriptions. Each institution has a governing body or committee on which the Council is represented.

The institutions maintained by the Council are eighteen in number. The following institutions which afford instruction in applied art are among these: The Central School of Arts and Crafts and the Camberwell School of Arts and Crafts, which provide instruction in a great variety of artistic crafts; the Hackney Institute, which deals with engineering subjects and has also an art school, and other departments; the Shoreditch Technical Institute, which provides chiefly for the furniture trades; and the School of Photo-

Engraving and Lithography (Bolt Court, Fleet Street), for the photo-process and allied trades.

The Council is assisted in the management of its schools by Advisory Sub-Committees and Consultative Committees. The Trade Consultative Committees advise the Council in connection with the detailed administration of the work of instruction as related to the respective industries. The Advisory Sub-Committees are local, and each is attached to some particular institute maintained by the Council. As regards the Consultative Committees, some are attached to particular institutions; in addition to these there are Central Consultative Committees for Engineering, Chemistry, and Banking and for the Book-production Trades (including the Bookbinding Trades and the Printing and Allied Trades), the Goldsmiths', Silversmiths', Jewellers' and Allied Trades, the Furnishing Trades and Men's Tailoring Trades. Each Central Consultative Committee consists of three groups of trade experts, directly representing respectively the Council itself, the Associations of Employers, and the corresponding trade unions or federations of allied unions.

The great majority of the students who are in attendance at the various technical institutions are evening students who are engaged in commercial or industrial pursuits in the daytime. The evening trade classes which constitute the bulk of the evening work, are, as a rule, confined to bona fide workers in the respective trades. The fees charged for admission to evening classes in these institutions are as follows:

Persons employed in trades or occupations upon which the teaching of the school has a distinct bearing are admitted to all or any of the classes of the school which they are eligible to join, on payment of fees at the following rates—if earning over 30s. a week, 10s. the session; if earning 30s. or less a week, 4s. 6d. the session.

Persons not employed in trades or occupations upon which the teaching of the school has a distinct bearing may be admitted to the school on payment of 10s. 6d. a term or a guinea the session; but students below the age of sixteen, if

qualified for admission to the School and furnishing satisfactory evidence that their work is of sufficient merit, may be admitted on payment of 4s. 6d. for the session.

In the evening school one fee admits to all the classes which the student is permitted to join.

Persons under twenty-one years of age qualified for admission to the institutes and bona fide engaged in the trade are admitted free on production of certificates from their employers, or on showing copies of indentures.

The day work carried on in technical institutions covers a wide field and includes courses for students working for university degrees and other advanced courses as well as art classes for training designers, teachers and skilled craftsmen. Several of these institutions also contain junior technical day schools or trade schools which provide a pre-apprenticeship training for boys and girls.

In order to assist boys and girls from the elementary schools to proceed to these schools, the Council has established a certain number of trade scholarships, which provide free education together with maintenance grants.

The Council in 1918 introduced a new scale of salaries for principals and other teachers in technical institutes. The scale for principals is divided into groups, the minimum salary in the lowest group being £400 and the maximum in the highest group being £1,200. The salaries for heads of departments range from £400 to £800 in the case of men, and from £300 to £600 in the case of women. The salaries of whole-time lecturers and teachers range from £150 to £450 in the case of men, and from £120 to £300 in the case of women.

At the same time a revised scale of salaries for principals, responsible masters and mistresses, and other teachers in evening institutes, was put into effect. The salaries of principals and whole-time responsible masters range from £350 to £600, and of whole-time responsible mistresses from £300 to £400. The payments to lecturers and instructors range from 10s. an evening to £1 1s. an evening, while special payments of a higher amount are made in special cases.

ROYAL COLLEGE OF ART

South Kensington, London

In 1836 the House of Commons appointed a select Committee on Arts and Manufacture to inquire into the best means of extending a knowledge of the arts and of the principles of design among the people (especially the manufacturing population of the country), also to inquire into the constitutional management and effects of institutions connected with the arts. The Committee reported that the arts had received little encouragement in England. As a result of this report a School of Design was opened at Somerset House on June 1st, 1837.

In 1849 a select committee produced a report wherein they described the maintenance of the School of Design to be an object of national significance and urged the importance of selecting men practically acquainted with designing for instructors, admitting at the same time the failure of the present school of arts to produce any effect upon the manufacturers. In 1851 the first exhibition of pupils' work was held.

In 1852, as a result of the condition of British industrial art revealed by the International Exposition of 1851, the school was reorganized and its objects defined as follows:

First, general and elementary instruction in art as a branch of national education among all classes, to improve the art judgment in producer and consumer.

Second, to advance instruction in art.

Third, the application of art to the improvement of manufacture and the establishment of museums.

In 1857 the school was transferred to South Kensington and the South Kensington Museum was opened. The nucleus of its enormous collection consisted of the art objects exhibited at the great exhibition of 1851. The art school was lodged in the rear of the building.

In 1859 the school is described as having as its primary purpose the supply of art teachers for all schools in the country. In 1836 National Scholarships for Industrial Students

were established and the school changed its name to The National Art Training School, and in 1897 the name was again changed to The Royal College of Art.

In the year 1900 a scheme was drawn up for the reorganization of the school which embodied the following features: The appointment of a Council of Art, and the return of the school to its original purpose, namely, direct promotion of the study of design. At this time the work of the college was reorganized on the basis of four schools, each under its own professor, dealing respectively with architecture, painting, ornament and design, sculpture and modeling. The policy of encouraging technical work in the so-called craft classes as an essential part of the curriculum, especially for students of design, was also laid down at this time.

The Royal College of Art is supported by the state and administered by the Board of Education, which consists of the President, Permanent Secretary, Parliamentary Secretary, Assistant Secretary, Chief Woman Inspector, and a Committee of Visitors of four.

The Committee of Visitors consists of representatives of both artists and manufacturers who exert a slight influence on the character of the various courses.

The College is well equipped with classrooms, lecture halls and workshops, and has at its disposal the collections of the South Kensington Museum, which are almost unlimited in their wealth of material, and of a quality and scope eminently suited to furnish the best inspiration for industrial designers.

The teaching staff consists of a principal, a headmaster, five professors, three instructors, two assistant instructors, two assistants, seven teachers, two assistant teachers, one demonstrator, one lecturer. The director is appointed by the Board of Education. The teaching staff is selected by the Committee of Four and the director, and is appointed by the Board of Education. The selection is largely from graduates of the college and they are generally full-time teachers. The salaries range from £400 to £1,250 per year.

The teachers of design are experienced persons possessing

a knowledge of the technical requirements of the craft for which they instruct. Studios are provided for professors and teachers to enable them to continue the practice of their profession and craft.

The number of students is at present between 200 and 250. About one-half of these come from London or from the urban districts of three large industrial counties, namely, Yorkshire, Lancashire and Staffordshire; the rest come in small numbers from other counties or occasionally from Scotland, Ireland or other parts of the British Dominion. From time to time a foreign student is admitted. The age range of the students on admission is a wide one, extending from fifteen to over forty years. Aspirants are required to submit their work according to the branch of instruction they desire to enter. Fees are £25 for the complete session and £12 10s. for one term. External students in the craft classes pay £2 2s. per term. Fee-paying students who show themselves possessed of more than ordinary ability are recommended by the principal for free tuition.

One of the most significant facts in connection with the college is that the student body is largely recruited through scholarships. Six National Scholarships of £90 each, paid by the government, are awarded to persons in the industries who make the best showing in examinations held in the art schools throughout the country in May and June each year. These scholarships are given for three years and may be extended to four or five years according to the progress of the scholar. Ten scholarships called Royal Exhibitions, amounting to £90 a year for a period of three years, are awarded by the Board of Education and are open to all students irrespective of their calling. These scholarships are competed for at the Board's examinations, held annually in all the art schools. Fifteen free scholarships are also awarded annually by the Board of Education to candidates who compete for the above scholarships and whose performance is creditable but not up to the standard required for the National Scholarships and Royal Exhibitions.

Another form of scholarships receives the term Local Exhi-

bitions. In case a local authority contributes half the value of the scholarships of £90 per annum for three years, the Board of Education agrees to contribute the remainder. These scholarships are also competed for at the Board examination held in the art schools annually throughout the kingdom.

There are also upwards of sixty County Council Scholarships awarded to students in the different art schools of the kingdom by County Councils. These scholarships are often given to persons who have been attending evening schools or Saturday afternoon classes. They are also for £90 and run for three years which may be extended to four. Finally, there are a number of Royal College of Art Scholarships of £90 each awarded for one or two years. These scholarships are open to students already in the college who have attended for a period of not less than two years. They are usually awarded to students who have entered the college upon one of the above-named scholarships, the tenure of which has expired, to enable them to remain at the college for a fourth or fifth year.

These scholarships exercise a strong selective influence in the matter of admission to the Royal College of Art. They operate to bring advanced training in applied art to specially able young persons throughout the kingdom.

Each professor in the four courses of architecture, painting, engraving, sculpture and design, in conjunction with the principal, prepares a syllabus of instruction for his school covering a period of three years. As a rule students studying beyond that time are specialists and for them post-graduate study is arranged. Courses planned for the craft classes are in a measure tentative; each student largely works out his own course. He makes his own design in the school and then executes the object from the design, guided by the craft instructor.

Lectures are given in each school by the professor as the class work demands. No lectures are given apart from the class work.

The aim of the instruction in the school of design is to give to those who intend to become designers or workers in the

field of industrial art a sound practical and artistic education making toward adaptability and readiness of expression. The attitude of the school is that creative power is not such a rare gift as is imagined, but like all gifts requires an environment which will give it an opportunity of development, and which will aid selection, refinement and appreciation of beauty of both form and color.

The plan of work in the school of design is as follows:

Lower Division—The outstanding feature of the course (apart from original design) is the importance given to the study of plant form, natural history, and studies made in the Victoria and Albert Museum. All these studies are careful and exact representations of the originals, and no conventional treatment is allowed in working from nature.

Upper Division—Students as a rule are promoted to this division at the end of the first half-year. In this division instruction is concentrated largely upon the work of applied design.

Craft Classes—These classes provide an opportunity for students to become acquainted with the limitations of the materials for which they have made designs. The following crafts are represented: wood engraving; embroidery and tapestry weaving; wood carving, furniture making and gesso work; lettering and illumination; gold and silversmithing, jewelry and enameling; stained glass; stone and marble carving; weaving; lithography; mosaic work. No craft work or designs made in the school are sold by the school.

About seventy-five per cent. of the students entering remain throughout the whole course. The larger percentage of the graduates become teachers of art. It is reported that about fifteen per cent. go into the designing rooms of the industries as textile designers, wall-paper designers, commercial artists, metal-work and jewelry designers. Such graduates start with salaries of from £30 to £70 per month.

Certain strictures upon the work of the College are contained in a report of a special committee made to the Board of Education in 1912. In this report it was pointed out that

two very clear and distinct functions are imposed upon the College: "It has to be the training ground whence a supply of teachers is regularly drawn for the local schools of art, and it has at the same time to give specific training to the pick of the industrial students of art from the local schools who desire to win for themselves commanding positions either as handicraftsmen in the more limited sense of the term, or as designers for the manufacturing industries."

The report goes on to state that up to 1912 the training-school aspect of the College was on the whole the predominant one. Most of the students who went through the shorter course expected to become teachers. A table in the appendix giving the occupations of students entered in the school from 1900 to 1910 shows that a very large proportion were engaged in teaching.

The work in applied design is given considerable attention in the report. It is held that "the most serious criticism is no doubt that, in spite of the experience in 'arranging for real work' which the craft classes afford, much of the inventive design remains unpractical, and may be described as design in the abstract rather than design for some actual and clearly understood technical process."

The committee state that they are disposed to think that it was designers for the handicrafts who derived the greatest benefit from the College of Art course as then organized.

As far as training of designers for the industries is concerned, the committee found that the graduates of the College of Art were not held in high regard by employers. In order to train designers for the industries effectively the committee reached the conclusion that this object could only be accomplished by the adoption of a method of training which will maintain throughout a very close connection between each student and the specific industry to which he belongs. They further state that "no one uniform system of art training will serve the needs of all industries; each industry must be studied as a separate problem . . . If the training of designers is to be kept in close relation to the industries, it must in the main be

carried on in the actual centers where those industries are located, and where alone the necessary equipment can without unreasonable expense be made available."

The recommendations of the committee make for decentralization of the work of the College of Art together with greater assumption of the function of training designers for the industries by the provincial colleges of art situated in centers of local industries.

The first recommendation in full is as follows: "That the training of designers for the manufacturing industries should be specialized, and should be undertaken by provincial colleges of art, each of which, while continuing to provide a general education in art, should devote special attention to the needs of the dominant industry in its locality, and to this end should take steps to associate with its work representative manufacturers and artisans belonging to the industry."

Since the issuance of this report it is evident that greater efforts have been made to develop industrial designers in the College and that the proportion of such designers entering the industries has been considerably increased.

CENTRAL SCHOOL OF ARTS AND CRAFTS

London

This school and the three other London schools covered in this report are administered by advisory sub-committees of the Education Committee of the London County Council.

The Central School of Arts and Crafts was established by the London County Council in 1896 with the object of helping British handicrafts and industries by maintaining their ancient traditions while furthering their modern development in design and workmanship.

The school was founded solely for the training of arts and crafts workers and aims to supplement rather than to supersede apprenticeship by affording those engaged in art industries opportunities for design and practice in the branches of the craft which, owing to the subdivision of productive processes, they are unable to learn in the workshop. The attain-

ment of the full purpose of the school is somewhat retarded by a mixture of students of all types, from the apprentice who is learning his trade and has little or no knowledge of art to the highly skilled worker, professional artist and advanced student of design. There seems little doubt that the school is at present heavily weighted with students who are comparative beginners.

In May, 1919, the Council decided that it should be a central school in the highest sense and provided with facilities for doing the most advanced work in the following departments or schools: Silversmiths' Work and allied crafts, Textiles, Stained Glass and Mosaic, Painted and Sculptured Architectural Decoration, Book Production, Furniture, Dress Design, Engraving. In addition to these subjects of special study there is provided ancillary instruction in architecture and building crafts, drawing and painting.

The length of the courses varies from two to five years.

The curriculum makes provision for full and part-time day students who are studying with a view to gaining a livelihood by some form of applied art work, for apprentices in art crafts and industries by means of early evening classes, and for workers in various trades and industries whose daily employment admits of their attendance only in the evening for further study to make them more proficient as designers or executive craftsmen.

The main work of the school is carried on in its evening classes in which 1,729 students were enrolled in the year 1919-20.

The schools of instruction represented in the evening courses are as follows: School of Architecture and Building Crafts, which aims to meet the needs of architects' pupils and assistants as well as of craftsmen and students of other subjects in which a knowledge of architecture is essential; School of Painted and Sculptured Architectural Decoration and Stained Glass, the object of which is to encourage understanding and practice of all forms of decoration associated both internally and externally with building; School of Furniture,

the purpose of which is to give a right understanding of the craft of furniture making and designing and to maintain the English tradition; School of Design, Textiles and Costume, which deals with all forms of surface design for furnishing and dress materials, and their uses in decoration and costume; School of Silversmiths' Work and allied crafts; School of Book production, the object of which is twofold—first, to preserve and encourage skill and appreciation of fine bookwork and the closely allied arts of engraving and lithography, and second, to strive for the artistic enhancement of the many commercial uses of these crafts which arise continually.

Lectures on a wide range of art topics were given during the year 1920-21.

The school occupies a splendid building centrally located in London and is extremely well equipped with classrooms, lecture halls, library and modern workshops.

The local industries upon which the school has a bearing are mainly those comprised under the term art handicrafts, which include silversmithing and goldsmiths' work, diamond mounting, gem setting, and the various allied metal work trades.

Besides the evening work the Junior Technical School provides full-time courses of instruction in the printing and bookbinding trades and the silversmithing and ancillary trades.

Day Technical School for Boys in Book Production

This school was established by the Council for the purpose of educating boys by means of printing, bookbinding and the allied crafts.

Day Technical School for Boys in Silversmiths' and Jewelers' Work.

The object of this school is to enable boys who intend to enter some branch of the silversmiths' or kindred crafts, as silversmiths, goldsmiths, jewelers, chasers, engravers, piercers carvers, mounters or draftsmen, to continue their general education and at the same time to acquire such a knowledge

of the artistic principles of design and of the scientific principles of construction, of the properties of materials and of the use of tools as will enable them at the end of the course to enter a workshop with an intelligence so trained as to make them immediately of value to an employer.

In each of these departments the boys remain in the school until they are sixteen years of age, when they are apprenticed to some firm of recognized standing, the time spent in the school being counted as two years of their period of apprenticeship.

Each school is open to receive a limited number of boys, between thirteen and fourteen years of age, who are in good health and can show evidence of a satisfactory general education and fitness for the trade.

There are Consultative Committees from the different trades, connected with the various courses offered by the school. Types of such committees are—*Bookbinding Section*: Representatives of the London Bookbinders' Association, of the Workman's Association, and of the Council; *Printing Section*: Representatives of the Association of Master Printers, of the Federation of Printing and Allied Trades, and of the Council.

The staff consists of seven regular teachers, sixty-four visiting teachers and four lecturers. Only one of the regular teachers is in full-time employment at the Central School of Arts and Crafts; the others are partly employed in other schools in the same building or elsewhere. The visiting staff is composed entirely of professional artists or art craftsmen who practice and are expert in the various branches of art or handicraft which they are employed to teach, and some of them are eminent exponents of their respective subjects. Several of these teachers have been employed in the school since its establishment in 1896.

The time of employment of the visiting teachers varies from two to sixteen hours a week, it being determined to a great extent by the demand for the particular subject or subjects they teach. In this, in common with other schools under

the Local Education Authority, the extensive employment of part-time teachers is primarily intended to secure the services of practical professional or industrial workers.

The salaries of the headmasters range from £457 to £650 per year, and the salaries of the instructors from £275 to £375 per year.

Through training and experience the teachers of design are well versed in the technical requirements of their crafts. With the exception of the technical instructors in the evening classes, such teachers do not as a rule engage in commercial work. In 1919-20 there were 305 day students, 268 day-and-evening students and 1,463 evening students. Of the total of 2,036 students 1,293 were males.

About seventy-five per cent. of the students entering remain throughout the whole course. By far the larger percentage of the graduates enter the workshops of the industries. About twenty per cent. go into the designing room. Such graduates start with salaries of from £30 to £45 per month.

From information furnished by the various teachers, it is evident that the school is doing most useful work in training students for the various artistic industries included in the curriculum, and in the provision of facilities for more advanced study for those already engaged in such industries. Many of the students in modeling, etching, illustration and miniature painting are working as professional artists, either independently or in connection with some firm.

There is very considerable cooperation with employers, especially in those industries which predominate in the neighborhood of the school, such as silversmithing and the allied trades, bookbinding and printing. This cooperation is manifest in connection with the attendance of apprentices at the special early-evening classes which meet twice a week for each section from 4:45 to 6:45, arranged for them in the employers' time, and also in the selection and placing of suitable students as employees with firms engaged in the above-mentioned industries.

During recent years several important firms engaged in the

drapery and furnishing trades have cooperated with the school in the formation of special day classes for their employees. The scheme has been developed gradually by experiment and experience at this school, and as it is now regarded as being on a sound basis, the classes are to be decentralized and in the future they will be held in four convenient centers, three on the north and one on the south side of the river.

As far as the preparation for design goes, the Central School of Arts and Crafts is the most favorably viewed of all London schools by the manufacturers. Hundreds of London firms are in close association with the Council, offering, in some cases, premises for school work and other facilities and giving all encouragement to their young workers. There is also a certain amount of cooperation with the trade unions. Experiments are being made with classes for manufacturers and buyers, during business hours.

CAMBERWELL SCHOOL OF ARTS AND CRAFTS London

The school was founded in 1898 with the purpose of providing instruction in those branches of design which bear on the more artistic crafts and trades, and to supplement the workshop practices connected with them. The school occupies a substantial building, well equipped with class and lecture rooms, library and work shops.

Day classes are conducted from 10 to 1 and from 2 to 4; late afternoon classes for apprentices and learners from 4:15 to 7:30 and evening classes from 7 to 9:30.

The following subjects are given both day and evening: book illustration, figure composition and commercial design; drawing and painting from life; figure and costume; still life painting; fashion drawing; lettering and illuminating; drawing and design for costume making and decorative design; dressmaking; decorative design and drawing; embroidery; metalwork; bookbinding; modeling.

The following subjects are given in the evening only: Painted lettering, inscription design and ticket writing; his-

tory of decoration; lithographic drawing and design; typography for compositors; modeling for carvers and plasterers; wood and stone carving and letter cutting; furniture design and drawing; plasterers' work, plain and decorative; stained glass work and drapery drawing; classes for salesmen and saleswomen in the wholesale and retail textile distributing trade.

There are also evening classes in anatomy, preliminary figure and unclassified drawing, architecture, history of architecture, building construction, house painting and decorating and a class for machine minders.

In the following subjects there are evening classes as well as late afternoon classes for apprentices and learners: Pottery, geometrical drawing and perspective, and cabinet-making.

Afternoon classes for composing and machine apprentices in the printing trades are held as follows: Composing—Monday and Tuesday, 2:30 to 6; Wednesday and Thursday, 4:45 to 7:15; Machine—Monday 2:30 to 6. These classes are for young workers bona fide engaged in the trade only, and the curriculum embraces the theoretical and practical sides of the subject, together with lessons in English and in the history of the craft. Employers are asked to look upon these classes as supplementary to the shop and they are invited to give their apprentices facilities for attending them. Attendance reports are made monthly to employers of students, and progress is reported every three months.

An outline syllabus of the classes in drawing and design for costume making and decorative design and the class in furniture design and drawing are given below:

Drawing and Design for Costume Making and Decorative Design—The work of this class embraces the following syllabus which is arranged to cover a two years' course: (1) The study of historic costume; (2) the cutting out, modeling and draping of characteristic styles of various periods, the knowledge so acquired being directed to the designing of modern costume; (3) the study of dress decoration and the production of designs for embroidery, braiding, beading, etc.; (4) fashion sketching for dressmakers and others.

Furniture Design and Drawing—This class provides instruction in the principles of design as applied to furniture and interior woodwork. Designs are worked out to scale with full-size details of moldings and ornaments. Instruction is also given in setting out perspective drawings of furniture and interiors, and in the application of carving, inlaying, painting and metal work to the decoration of furniture, etc. A three years' course has been arranged for cabinet-makers, but beyond this period further instruction is provided in other features of work essential to this subject.

During the session certain of the classes visit, under the guidance of their respective teachers, the Victoria and Albert Museum, the British Museum, the National Gallery, the Zoölogical Gardens, the Natural History Museum and other places of interest. In the summer months arrangements are made for certain classes to sketch in one of the Council's parks, thus affording opportunity for outdoor sketching.

The session comprises two terms, extending from the last week in September to January 31st, and from February 1st to the last week in June.

In 1921-22 there were 322 day pupils and 1,055 evening pupils in the various courses.

SHOREDITCH TECHNICAL INSTITUTE

London

This school is situated in the heart of the furniture manufacturing district of London and deals with instruction in all branches of the furniture trade. It also conducts a trade school for girls, and a teachers' training department.

The day department embraces all three of these divisions but by far the larger part of the work of the school is confined to the evening classes connected with cabinet-making and the allied trades.

The aim of the evening classes for men is to help establish and maintain a high standard of skill in cabinet-making, wood-working, and allied trades; to afford artisans the advantages of broadening their knowledge; to enable young craftsmen to

study best methods of work under the best teachers; and to encourage and foster design in the trades represented. The trade classes are strictly confined to those who are actually engaged in the various trades and who are earning their livelihood, or preparing to earn their livelihood thereby.

The school is provided with well-equipped workshops for cabinet-making, carving, chair making and upholstering.

The following subjects are given: Practical classes in cabinet-making and inlaying; workshop drawing, and furniture design for cabinet-makers; wood-carving; chair making; French polishing and furniture enameling; upholstery stuffing; magnetism and electricity; chemistry of metals, wood, paints, varnishes and other workshop materials; general drawing and design; modeling; upholstery drapery; drawing for upholsterers, furniture draftsmen and salesmen; shop and office fitting; electric wiring and fitting; electrical instrument making and elementary mechanical engineering; metal work, van building and wheelwrights' work; mechanical drawing and machine construction; English language and literature; workshop and general arithmetic.

The lectures and classes in workshop drawing and furniture design for cabinet-makers are specially suitable for working cabinet-makers and furniture draftsmen who desire to learn the methods of practical workshop drawing and setting out.

The aim of the course in general drawing and design is to give such instruction in the principles of this work as will assist trade and other students to take up the more advanced technical work of the class devoted to design of interiors, fitments, etc. The work of the class in advanced drawing and design is specially directed to meet the requirements of young men who are actually working in drawing offices and furniture studios.

The decorative side of upholstery is dealt with in the class in upholstery-drapery, the object being to give such instruction as will enable students to follow architects and decorators in the various styles of color and treatment in such a way as to give fitness to rooms when finished.

The aim of the class in drawing for upholsterers, furniture draftsmen and salesmen is to enable young upholsterers and furniture draftsmen to appreciate form, accurate arrangement, balance and the general appearance and special features of the various periods and styles of drapery and upholstery.

The hours of the evening session are from 7:30 to 9:45.

About eighty per cent. of the entering students are reported as remaining throughout the whole course. The greater percentage of the graduates of this school continue in workshops of the cabinet-making industry as highly skilled workmen. A small number, approximately five per cent., are reported as entering into designing rooms. Such graduates start with salaries of from £25 to £40 per month.

Day classes for apprentices and improvers were started at the request of employers who agreed to send boys one day a week for instruction, which consists of practical drawing and setting out, workshop calculation and bench work.

The object of the Technical Day School for Boys is to enable boys who intend to enter some branch of the furniture or other woodworking trade, such as cabinet-making, carpentry, joining, shop fitting, pattern making, turning, wood-carving or trade drafting, to continue their general education and at the same time to acquire such knowledge of the artistic principles of design and of the scientific principles of construction as will enable them at the end of the two-year or three-year course to enter the workshop with a full appreciation of the points to which they are expected to direct their attention and with an intelligence so trained as to make them immediately of substantial value to an employer. The school is open to boys who are capable of doing the work of standard VII.

This school has developed substantially in the last fifteen years and is now well attended.

The object of the Trade School for Girls is to afford an industrial training in dressmaking, upholstery and embroidery to take the place of apprenticeship. Attached to the trade school are consultative committees of trade employers and

social workers who are engaged in work in factories affecting the trade work. The fee is £1.1.0 a year.

Evening classes for women—from 7 to 9:30—include instruction in stenciling, trade dressmaking, home dressmaking, embroidery, and drawing and design.

SCHOOL OF PHOTO-ENGRAVING AND LITHOGRAPHY

LONDON

The school of Photo-Engraving and Lithography was established by the London County Council for the purpose of training those who are engaged in some branch of the photo-mechanical, photographic, designing, lithographic, engraving, printing and illustrating crafts. No provision is made for amateurs.

The art section of the school is intended for artists engaged upon work for reproduction and students in these classes have the privilege of having selected work reproduced. Every opportunity is given such students to obtain a knowledge of the various processes and their technical requirements.

The Junior Technical Day School provides a course of technical instruction in photo-engraving, preparatory to entrance to the trade. Instruction is provided in practical work, and, in addition, scientific and artistic training is given in order that full benefit of the trade instruction may be obtained.

The school is well equipped with the necessary appliances for study and practical work. The appliances are identical with those in use in the trade, so that students carry out the operations under thoroughly practical conditions.

The main work of the school is carried on in the evening classes, from 7 to 9:30.

The evening courses in the school include the following: Photography for Reproduction Processes, the Preparation of Originals for Reproduction, Line and Half-tone Negative Making, Advanced Photographic Work, Tri-color Negative

Making; Processes for Relief Printing, Line Etching on Zinc, Brass and Copper, Metal Printing and Half-tone Etching, Fine Etching, classes for apprentices and learners employed in Photo-engraving; Processes for Surface Printing, General Lithography, Map and Plan Drawing, Lettering and Transfer Writing, Chromo-lithography, Photo-lithography; Intaglio Printing Processes, Photogravure; classes in Elementary, Antique, Costume and Life Drawing, Color, Pictorial and Decorative Composition, Black-and-White Design.

Lecture courses are given in the following subjects: the principles of photo-mechanical methods, lithographic processes, paper making, paper testing, stationery manufacture and account-book making.

Junior Technical Day School

Boys between thirteen and fifteen years of age, who have passed the sixth grade of an elementary school or its equivalent, may be admitted to the Junior Technical Day School.

The school is open on five days a week from 9 in the morning to 1, and from 2 to 5 in the afternoon.

The course is arranged to extend over two years. The commoner methods of photo-engraving, including line negative making by wet plate and line etching are taught and some practice is given in half-tone reproduction. Instruction is given in elementary chemistry and physics in relation to the craft, and in order to prepare boys for the more artistic branches of the work, there is also instruction in drawing. The general education of the boys is maintained throughout the course.

Although the school is in close touch with the trades, there are no committees from the industries as in the case of the Central School of Arts and Crafts.

The fees are 10s. per term or 30s. per year. The Council offers free tuition to boys capable of profiting by the instruction given but unable to pay the fees. In such cases, boys possessing ability above the average may qualify for a maintenance grant in addition to free tuition. The maintenance grant is assessed according to the parents' circumstances.

CENTRAL SCHOOL OF ART

Birmingham

The purpose of the school is mainly to train artists and craftsmen and, in the architectural classes, to prepare young people for their future work as architects and to assist them to prepare for examinations of the Royal Institute of British Architects. The printing school aims to prepare young people entering the printing trade as apprentices.

A Report of Inspection of the school made in April, 1920, states:

"The total number of students enrolled at the time of the inspection was 975, of whom 252 were taking full-time courses of study. A large majority of the remaining number are evening students.

"Of these full-time students 136 are attending a definite course of study, covering thirty hours a week for boys and twenty-seven and a half hours a week for girls, for each of the four years of the complete course. The aim of the course is to prepare boys and girls for industrial art careers, and though not definitely planned for any specific industry, it has a bias in the direction of silversmithing or other branches of artistic metal work. The greater part of the time is devoted to draftsmanship of various kinds, design, metal work and, in the case of boys, modeling; but two and a half to four hours a week are given to English and arithmetic.

"The Day School of Architecture has an enrollment of eighteen students, of whom seven are ex-service men. It provides a three years' course involving attendance at the school for three and a half hours, on six mornings a week, concurrently with work at an architect's office in the afternoons.

"Of the remaining ninety-eight full-time students twenty-seven are ex-service men who are taking courses in Modeling (3), Jewelry (5), Stained Glass Design (2), Book Illustration (5), Advertisement Design (9), Draftsmanship for Art Metal Work (2), and preparation for the Board's Drawing Examination (1). Most of the other full-time students are taking courses hav-

ing some branch of Design for Illustration as the dominant subject, but some are taking courses in Drawing, Design and Art Handicraft, and two students have followed a course in the Principles and Practice of Teaching and School Management."

In the course in Fashion Drawing and Design, fashion plates, materials of various textures, and finished garments are studied; imaginative and memory drawing is insisted upon and directly applied in drawing costumes from descriptions given by the teacher. The second year is devoted to the acquisition of knowledge of the structure and texture of materials and their suitable use, the manipulative methods of pen and wash work for reproduction, and to drawing from the human figure. The third year stresses creative work in design, and style of expression in illustration.

A well-devised course in Typography is followed, including the usual process of typesetting and display, also theoretical instruction in preparation for the "City and Guilds" examination. Special attention is paid to the question of artistic display, and the various efforts of the students in working out the same problem are frequently mounted as a set. These form a useful basis of comparison by which the students can be taught to appreciate the artistic qualities of the best work.

The course of instruction in Enameling and Jewelry is upon art-craft lines. The students design and make articles in which the various processes of jewelry and enameling are employed. The work in metal comprises raising, repoussé, soldering and mounting. The students make their own drawings and designs of shapes and decoration. The ornamentation is made up for the most part of borders made by stamping, with the hand and with patterns made from shaped tools.

In the course in Embroidery the beginner starts by embroidering flowers or foliage upon a small piece of linen, which is generally made up afterwards into a bag or a pin-cushion; and follows by the embroidering of larger pieces such as pillows, screens, bedspreads and curtains, upon which flowers, foliage, animals, fishes, birds, letters, etc., are used as the units of design.

The subject of Bookbinding is taken entirely as an art handicraft without special regard to the training of trade workers. The course covers all the processes comprised in the complete binding of a book, including forwarding and finishing in gold or blind tooling.

A considerable number of students study writing and lettering, some with a view to the practice of writing and illumination as a craft, and others to acquire a sound knowledge of good lettering for use in poster work and commercial design.

Students fourteen years old or more are admitted. A good general education is the only entrance requirement. The School of Architecture, however, requires a special examination. Fees per term: Five days a week, £4 10s. if pupil is over sixteen years of age, and £1 10s. if pupil is under sixteen years of age. Evening classes, 7s. 6d. per term.

Systematic records have been kept of employment obtained by full-time free-admission students and scholarship holders on leaving the school. Such records show that most of these students have been placed in occupations that afford opportunities for them to apply their art training and to rise to positions of responsibility. A considerable number of these students have obtained employment as draftsmen, modelers and designers in different branches of the art metal-work industry, others are draftsmen for shop fitters, cabinet-makers and architects, while a few have become stained-glass workers.

There is definite cooperation between the school and the printing trade. There is a joint consultative sub-committee for the printing and allied trades and employers allow their apprentices time off to attend the day printing classes at the school and also pay their class fees. A similar advisory committee for the house painting and decorating trade is in existence.

The School of Architecture works in close cooperation with the Birmingham Architectural Association, members of which have arranged to allow their articled pupils to attend the school in the mornings concurrently with work in their offices in the afternoons.

There are a number of branch and related schools throughout the city. Of these, the School for Jewelers and Silversmiths is particularly interesting in that it is a school designed to meet the direct requirements of a definite trade. The school is administered by a joint committee, half of the members being nominated by the Jewellers' Association and half by the School of Art Committee. The equipment is modern and adequate and the requirements of the trade are met upon both the art and the technical sides. In addition to catering to the wants of the younger persons in the trade, specific instruction is provided for foremen and older workmen.

SCHOOL OF ART

Leeds

The Education Committee of the City of Leeds has a well-devised scheme of art instruction that coordinates and systematizes the art work in the various schools of the city. The Committee issues a 95-page "Scheme of Work in Art Instruction" that groups the work in three grades: preparatory work in general evening schools, elementary and intermediate work in branch schools of art, and intermediate and advanced work in the Central School of Art. The work is confined to evening classes, except in the Central School of Art, which also conducts day classes. The aim of the entire coordinate instruction is specifically stated as being the advancement of the industrial arts.

The Central School of Art lays stress upon presenting the various art studies so that they shall lead to some useful and practical end. In order to accomplish this, every facility is provided, so that side by side there shall be not only study in principles, draftsmanship and design, but that these shall be applied in a practical way in the craft studios of the school to the various art handicrafts and industrial arts. An advisory trades committee establishes a connection between the school and the various applied art industries.

The hours of instruction are from 9:30 to 12:30 and 2 to 4

for day classes and from 7 to 9 for evening classes. Saturday classes meet from 10 to 12. After a pupil has acquired sufficient knowledge of drawing and design he is admitted to any of the craft classes where special design instruction is given together with practical shop work. The courses extend over periods of from one to three years.

The school comprises the following departments: The Architectural School, the Design School, the Modeling School, the Life Drawing and Painting School, the School of Instruction in Primary Drawing, and various Craft Schools.

The curriculum embraces all the requisite subjects in the six departments specified above, and in conjunction with them equipment and instruction are provided for the following crafts: Bookbinding, cabinet-making, embroidery and lace, enameling and jewelry, mural decoration, pottery, painters' and decorators' work, metal work, wood, marble and stone carving, illustration work, and wrought-iron work.

All of the subjects of the curriculum are given in both day and evening classes. In 1919 there were 200 day pupils and twice that number in the evening.

The courses of the Department of Architecture are planned to prepare students for the examinations of the Royal Institute of British Architects. In connection with this department there are classes in furniture design and interior decoration, to meet the requirements of those engaged in these occupations.

Much of the work of the Department of Design is in close touch with local industries and, in the craft studios of the school, the student is enabled to supplement his workshop training by carrying out his designs under the direction of the craft teachers, who are specialists in their various branches of the applied arts.

The courses of the Department of Life Drawing and Painting are planned to meet the requirements of those who, in their work, need a knowledge of the figure.

The courses of the Department of Modeling and Sculpture aim to meet the needs of all workers in plastic art, such as carvers in wood, stone, marble, ivory and metals, plasterers,

architectural modelers, potters, metal-work modelers, letter cutters, sculptors, and others.

The object of the class in Pottery is to illustrate in a simple and inexpensive manner principles and facts relative to the making and decoration of pottery, enabling students to design, make shapes, and decorate them, with a knowledge of the requirements of this important industry.

The class in art bookbinding includes both "forwarding" and "finishing." In conjunction with this work instruction is given in tooling and inlaying on leather book-covers.

In the class in Enameling on Metals, the following branches are taught: Cloisonné, champlevé, basse-taille, painted and encrusted.

The course of instruction in Embroidery and Lace is intended (1) to aid students in selecting or designing patterns suitable for the various methods of embroidery; (2) to give instruction in carrying out patterns or designs with due regard to economy of material, simplicity of effect, quality of surface, and suitability of situation; (3) to teach the capabilities and limitations of the craft of the needle, having in view the requirements of modern decorative art.

The work of the course in Dress Design includes instruction in draping, the study of fabrics, color arrangements and the designing of costumes in both historic and modern styles and of accessories, such as fans, bags, trimmings, etc.

Instruction is given in the study of Illustration in its various forms, with special application to line and half-tone work for the profession and trade.

The course of instruction in Jewelry and Art Metal Work covers all branches of the jeweler's, silversmith's, and goldsmith's trades, and includes soldering, wire drawing, both solid and hollow, chain making, hinge joint, catch and pin making, saw piercing, chasing, scoring, setting, mounting, finishing, and casting in various metals. The course also includes plating, gilding, and polishing of objects of silver and of high-grade and low-grade golds. There is a fully equipped jewelers' and silversmiths' workshop at the school.

A special course of instruction in the principles of art applied to Typography is given in conjunction with the classes held in that subject in the Printing Section of the Central Technical School. This course is divided into elementary and advanced sections, and deals fully with methods of drafting out type arrangements for all kinds of work, spacing, proportion, association of type faces and color harmony.

In conjunction with the Bakery School (Central Technical School) a class in drawing, design and modeling for confectioners is held.

There are two evening courses connected with lithography—Drawing and Color for Lithographers, and Principles of Design and Ornament for Lithographers.

The twenty-two craft teachers are practical men, and in thirty per cent. of the cases continue to work in the field wherein they give instruction. The rest of the staff consists mostly of graduates of the Royal College of Art. The salaries of the instructors range from £350 to £600 per year. The teachers of design have also a knowledge of the technical requirements of their respective crafts.

The fees for each of the day craft courses are 15s. per term for one half-day per week, or £1 5s. per term for two half-days. The fees for similar courses in the evening are 10s. per annum, except in the cases of jewelry and silversmith's work, engraving and wrought-iron work, where an additional charge of 5s. per annum is made to those not in the trades. In the various evening art courses the charge is 15s. per annum for one, two or three evenings per week, and 17s. 6d. for four or five evenings. The day fees range from £2 per annum for one half-day per week to £9 per annum for five days per week.

CITY OF LEICESTER SCHOOL OF ARTS AND CRAFTS

The scope of the school is threefold: to afford craftsmen an opportunity to become better workmen, to provide general students with a means for the cultivation of appreciation and knowledge of the arts and crafts, and to qualify teachers for instruction in art. There are four advisory sub-committees

as follows: The Printing and Allied Trades, the House Painting and Decorating Trades, the Building Trades, Cabinet-making and Furniture Design. Each of these committees is made up of representatives of related trade organizations, the total number of such organizations represented numbering twenty-two.

The school possesses a good museum of craft products, consisting of specimens of work in wood, metal, bookbinding, printing, pottery, glass, jewelry, embroidery, and other crafts. These are supplemented by casts from classic, Gothic, and Renaissance work including, as a special feature, several large casts showing complete architectural schemes.

The syllabus of the school is arranged in courses of from one to three years' duration, and instruction in all of these courses is provided for in both day and evening classes.

The Department of Architecture and Building provides separate courses for architects, clerks of works, builders and structural engineers, bricklayers, carpenters and joiners, and plumbers.

The Department of Printing and Book Production provides courses for lithographic artists, apprentices, and printers; bookbinders; compositors, and letterpress machine printers.

Other courses provided are for jewelers, goldsmiths, silversmiths, and other metal workers; embroiderers and lace makers; modelers, stone and wood carvers, plasterers, letter cutters, and plumbers' ornamental workers; house painters and decorators; cabinet-makers; and draftsmen and designers. There are courses in dress design and weaving; spinning, weaving and dyeing; figure design and painting; art considered as a part of general education; and a Saturday morning course for teachers of drawing in the elementary schools. There is also an evening course for teachers of drawing, writing, or craft work in the elementary or secondary schools.

As an example of the character of the work the Course for Lithographic Artists may be cited. This course is arranged in conjunction with the Leicester Master Printers' Association

and the Lithographic Artists' Association, (1) for the preliminary training of those youths who intend to become apprentices, and (2) for those already apprenticed. The members of the Leicester Master Printers' Association have arranged to give preference to those who have taken the two years' preliminary training, and to give facilities during apprenticeship for the student to complete the course by attendance at day and evening classes. The work performed during the course is considered as a part of apprenticeship training.

In the day class, the first year embraces the following subjects: English, mathematics, etc., sciography and draftsmanship, design for lithography, plant form and color work, studies of ornament, demonstration in lithographic printing, object drawing, portions of buildings, etc., studies of ornament and design.

During the second year the subjects are: English, mathematics, etc., sciography, and draftsmanship; lettering, design and practical lithography; studies of plants, birds, etc.; designing and cutting blocks, and printing in color; demonstration in lithographic printing; memory drawing; studies of ornament and design.

At the end of the first year the student's work is reviewed for the purpose of deciding whether it would be desirable for him to continue his training for a lithographic designer and draftsman.

At the end of the second year the student must be apprenticed in the office of a lithographer and continue his work at the School of Art in evening courses as follows: First year—plant form and shading, lettering, object drawing; second year—lettering, lithographic design and practical work, plant form and shading; third year—natural objects, ornament, heads, etc., lithographic design and pictorial work; fourth year—life class, lithographic design and practical work; fifth year—life and composition, anatomy.

There are five instructors for architecture and building crafts; three instructors for cabinet-making and wood-carving,

eight instructors for printing and book production; three instructors for silversmiths' work and jewelry; two instructors for women's crafts; and nine instructors for drawing, painting, decorating and design. The teachers' salaries range from £350 to £600 per year.

The teachers of design have a fair knowledge of the technical side of the crafts for which they prepare their pupils. These teachers do not, as a rule, perform any commercial work. No craft work or designs made in the school are sold.

The minimum age at which students are admitted to the school is fourteen years. No special entrance examination is required, but students are required to furnish evidence of an education sufficient to enable them to profit by the instruction given.

The fees range from 10s. per term for one-half day per week to £3 per term for more than eight half-days per week.

The day classes meet from 9 to 12:30 and from 2 to 4:30. There are special afternoon classes for apprentices and others in the cabinet-makers' trade that meet from 4:15 to 6:45. The school year is divided into three terms of thirteen weeks each.

In 1921-22 there were 585 pupils in the day classes and 620 in the evening classes.

About eighty per cent. of the students entering remain throughout the whole course. By far the larger percentage of the graduates enter workshops of the industries as printers, bookbinders, lithographers, cabinet-makers, draftsmen, metal workers, sign writers, painters and decorators, jewelers, etc. About ten per cent. go into the designing room as designers of textiles, wall paper, as advertising artists and illustrators. Such graduates start with salaries of from £15 to £35 per month.

The advisory sub-committees maintain an active contact with the trades and also assist in securing positions for graduates of the school, to whom preference is accorded when seeking employment.

Some eminent designers in the trade have been graduated from this school.

MUNICIPAL SCHOOL OF ART

Manchester

The school presents courses of instruction in painting, sculpture, architecture and allied subjects for students who intend to pursue these lines as a profession, or as a part of their general education. Opportunity is also given for students intending to specialize in application of art to industry.

The division of the school work provides for a lower school, giving elementary and intermediate art and crafts instruction; an upper school, providing specialized training in various art and crafts subjects, and for those wishing to qualify as teachers in these subjects; special courses for teachers; an art-industries preparatory course; post-graduate work; and public lectures and art exhibitions. The school museum of art work and an art library provide additional facilities for study. With few exceptions all subjects are offered in both day and evening classes.

The art subjects offered are—Industrial and pictorial design; history, styles and methods of engraving and other processes of artistic reproduction; drawing or modeling from historic ornament; history, styles and methods of industrial design and crafts; modeling from casts and life; history, styles and methods of sculpture.

The applied art courses are as follows: Design for Figured Textiles and Study of Weaving Processes; Design for Printed Textiles and the Technicalities of Printed Goods; practical class in Block Making, Textile Printing and Batik Work; *Book and Print Production Section*—Book Illumination, Poster and Commercial Advertising Design; Writing, Illumination and Lettering; Etching, Mezzotint, etc.; Lithography, Drawing on Stone and Proofing; Photography, Retouching and Composition; *Metal Crafts Section*—Goldsmiths' Work, Jewelry and Enameling; Silversmiths' Work, Repoussé, Hammered Work, Chasing and Engraving; Casting in Bronze and Electrotyping; Chiseling and Finishing of Bronze Castings; *Embroidery and Costume Section*—Embroidery and Tapestry Making; Dress and Cos-

tume Design (construction and history); Practical Cutting and Making-up of Costumes; Fashion-plate Drawing and Design; *Furniture and Architectural Decoration Section and Allied Crafts*—Drawing, Construction and Design of Furniture; Interior Decoration and Perspective Views; Practical Cabinet-making; Wood-carving; Stone-carving and Letter Cutting; Marble and Statuary Carving; Practical Stained and Painted glass Work; Plaster Work, Plaster Modeling with Casting; special lectures for salesmen in Drapery, Furniture, etc.; Practical Pottery Making and Decorating; *Painting and Decorating Section*—Plain Painting, Distempering; Paper Hanging; Sign Writing; Glass Writing and Gilding; Ticket and Poster Writing; Brush Graining; Graining and Marbling; Color Study and Interior Decoration; Brushwork, Painting Ornaments, Emblems, Stencil Cutting, Stenciling and Lining.

The minimum age for entrance is fourteen years, with the usual requirement of ability to profit by the instruction given.

The school year extends from the last week in September to the third week in July (to July 1st for the evening classes), and is divided into two about equal terms. The school is open from 9 a. m. to 9 p. m. on Monday to Friday (except Wednesday afternoon, which is reserved for outdoor recreation), and on Saturday for teachers' classes from 10 to 12.

In the day courses the fees range from £1 10s. per term for three half-days per week to £4 per term for full time. The fee for three evenings per week per term is 7s. 6d. and 10s. for four evenings. The charge for the full year is somewhat under double the term fee.

In 1919 the total attendance was 480 day pupils and 600 evening pupils. Separate figures for the different courses are not available.

The faculty consists of one headmaster, one assistant master, seven instructors, one professor of architecture, one assistant lecturer. These teachers are not engaged in practical work in the industries. Their salaries range from £500 to £700 per year.

About sixty per cent. of the students entering remain

throughout the whole course. By far the larger percentage of graduates become artists, sculptors, architects and architects' assistants and industrial craftsmen. About ten per cent go into the designing rooms of the industries. These latter start with salaries of from £15 to £20 per month.

As indicative of the cooperation between the school and the industries it may be noted that the Advisory Board of fourteen includes members of some of the leading textile, pottery, and other applied art corporations, a master designer for printed fabrics, and a representative of the Calico Printers' Association.



There are many other important schools giving instruction in industrial art in various places in England. Among these are:

Schools of Art at Stoke-on-Trent in the center of the pottery district. An advisory committee for these schools includes manufacturers and technical experts. The schools provide graded courses for students in every phase of the pottery industry.

Kidderminster School of Art which has for one of its main objects the artistic training of young persons preparing for entrance to the design studios attached to the local carpet factories and the further training of those already so engaged.

THE BRITISH INSTITUTE OF INDUSTRIAL ART

Several organizations aiming to raise the standards in the art industries have developed in England since the war. Prominent among these is the British Institute of Industrial Art, organized in 1920. The scope and plans of this association are set forth in the following excerpts from one of their published reports.

The Board of Trade, as the department dealing with industry, in conjunction with the Board of Education as the department responsible for the national system of art education, and the authority controlling the Victoria and Albert Museum, with the advice of the Royal Society of Arts, the Arts and Crafts Exhibition Society, the Art Workers' Guild and the Design and Industries Association, have framed the scheme for the establishment of the British Institute of Industrial Art, with the object of raising and maintaining the standard of excellence in works of industrial art produced by British designers, craftsmen and manufacturers, and of stimulating the demand for such works as attain to a high standard of excellence.

The objects for which the Institute is established are:

To raise and maintain the standard of excellence in works of industrial art, the product of British designers, craftsmen and manufacturers, to stimulate the demand for such works, and in particular to secure:

(1) A permanent exhibition in London of modern British works which attain to a high standard of design, craftsmanship and manufacture.

(2) The organization of provincial and traveling exhibitions of a similar character, either directly or in cooperation with other organizations.

(3) The establishment of machinery for bringing designers and art workers into closer touch with manufacturers, distributors and others whom it is desired to interest on their behalf.

(4) A purchase fund to secure for the State selected works of outstanding merit.

That the Institute may thoroughly represent all phases of modern industrial art, one section is devoted to works mechanically produced and others to works of individual craftsmen. The test for inclusion in the exhibition is the attainment to a high standard of artistic design, apart from its being characteristic of any particular "school" or tendency. In addition to the governing body, responsible for the general management of the Institute, a Selection Committee has been appointed consisting of persons of acknowledged authority and eminence in matters relating to industrial art.

The Institute, aware that art can only enter industry as an aid to production, viz., by contributing to insure that quality in production which is the natural outcome of good design and good workmanship—and which constitutes a vital element of successful competition on the world's market—will devote its utmost attention to the problems connected with the organization of that cooperation on a proper and thorough basis, safeguarding and promoting the legitimate interests of the trade and industry as well as those of designers and craftsmen.

An Information Bureau is being organized on a comprehensive and up-to-date basis, with the general object of acting as a Labor Exchange, Clearing House, and Directory for the world of the industrial arts, providing practical data on topics—technical, economic, artistic, educational, etc.

For instance:

To Manufacturers—Technical researches and discoveries; conditions of markets, tendencies, statistics, requirements; lists of addresses, especially abroad; where to find designers, etc.

To Buyers at Home and Abroad—Full lists of addresses, catalogues, descriptions, samples, and general information facilitating their investigations and business.

To Craftsmen, Designers, etc.—Technical questions, manufacturers' requirements, exhibitions, competitions, historical and artistic documents, appointments, etc.

All persons interested are invited freely to make use of this service. Producers and consumers are invited to state their requirements, and in their own interest to supply the Institute with catalogues, illustrations, etc., these documents being particularly needed in conjunction with the Institute's exhibitions and for purposes of propaganda, especially abroad.

THE DESIGN AND INDUSTRIES ASSOCIATION

The Design and Industries Association, founded in 1915, is another organization of national scope with similar objects in view. Its aims are stated below:

The growth of our national industries has been left hitherto mainly to chance; such attempts as have been made to improve design in relation to workmanship have been fitful and have not greatly influenced commercial production.

The need for a national recognition of the value of design in industry was never more vital than it is today. Mechanical invention and improvement have led to a vast increase in the production of manufactured goods; but the output of the machine has been more considered than the design of the thing made by it. Design has been chiefly regarded as a means of making goods more readily saleable, whereas it should be the means of making them more genuinely usable.

True design is not merely a matter of decoration. Ornament may add to the beauty of a well-planned and well-made thing (provided that its usefulness be not thereby impaired), but ornament alone can never make a bad thing good. Design is the devising of the form, construction and treatment of an object so as to fit it perfectly for its use, whether it is to be made by hand or by machinery. The striving for fitness in the ship, the plough and the aeroplane, has produced perfect examples of design, because those who make them, in aiming at efficiency, achieve both economy and beauty in the process. Industrial supremacy in the future will be to the nation whose products, as a whole, attain most nearly to such standards.

The aim of the Association is to promote the development of British industry, by encouraging good workmanship based on excellence of design and soundness of material, which aim can only be attained through the intelligent and friendly cooperation of workers, designers, manufacturers, distributors educators and the general public.

The Association pursues its aim:

By holding exhibitions of the best current examples of commercial products.

By publishing literature, by propaganda in the press and by lectures.

By forming trade groups of manufacturers, designers and distributors, and by providing means of cooperation between individuals.

By endeavoring to bring education throughout the country into closer relationship with industry.

INSTRUCTION IN DECORATIVE ART IN FRANCE

Since the time of Henry IV, when cabinet-makers were housed in the galleries of the Louvre, the French government has given much attention to fostering the development of the industrial as well as the fine arts. In the reign of Louis XIV the establishment of the Manufacture Royale des Gobelins brought together workers in furniture, ceramics, metal and tapestry and stimulated designers and craftsmen to achievements which soon placed France at the head of European nations in the field of art.

Of late years the government has been keenly alive to the fact that the artistic taste and skill of the French people represent a national asset, and has assiduously endeavored to encourage the fullest development in this field by fostering schools of art and museums. The importance of this situation is recognized by the fact that since 1824 one of the cabinet offices has been a Ministry of Public Instruction and Fine Arts.

The national schools of fine arts and of decorative arts, as well as certain schools connected with the national manufactories, are entirely supported by the government. Others receive liberal government grants. The Minister of Public Instruction and Fine Arts exercises supervision over all art schools in France.

The provincial departmental or municipal schools receive a grant from the state fixed generally at a third of the contribution of the local authorities. These grants are dispensed by the local authorities, but the government joins in supervision of the classes. Those schools which are under municipal or corporation management and which receive assistance in grants from the general government follow in large measure the general method and course of instruction laid down by the ministry. Liberty is always given to the directors of these schools to

adjust the curricula to local industrial requirements. This adaptation to local needs is indeed expressly recommended by the inspectors.

In establishing new schools local authorities are expected to contribute two-thirds and the government one-third of the expense. Emphasis is laid upon the holding of evening classes in these schools so that artisans employed during the day can avail themselves of the opportunities thus offered.

The government inspectors examine the workings of the school and report on the work produced by the pupils. These reports are communicated to the departmental and municipal authorities who are thus informed of the results obtained and the observations made on the work of the schools. In the cases where progress is noted the state encourages the students by rewards or prizes and the general councils of the departments or municipalities award school or traveling scholarships.

The inspectors of instruction in drawing also have certain relations with the provincial museums in that they are required to verify that these museums are maintained according to the regulations.

Each year a session of examinations conducted by the government is held in Paris through which the certificate of proficiency for instruction in drawing in the Lycées and colleges is obtained. This session is open to all candidates from Paris and from the provinces.

In addition, every two years, a session of examinations is held at Paris to obtain the certificate of proficiency for instruction in decorative composition.

Finally, a normal session of the applied arts takes place each year, sometimes in Paris, sometimes in another important city. These sessions are composed of the principal art manufacturers, artists engaged in the industrial arts, art critics and directors and professors of drawing schools. The expenses of these last are generally defrayed by the municipalities.

The French policy of state grants to departmental and municipal schools of art obviously assists in building up and

maintaining a widespread system of art instruction throughout the country. The plan of state inspection tends to maintain the work of these schools at a high level by bringing to each school the benefit of an informed point of view. By this means the experience of the whole nation is brought to bear upon each school. In the same way the system of state examinations insures a high standard of ability and culture in the instructing staffs.

Drawing is an important subject of the elementary schools and forms part of the examination for the certificate of primary studies.

In the secondary elementary schools (*école primaire supérieure*) art instruction is given an important place. Three weekly drawing lessons are intended to furnish a general basis of skill upon which art instruction can be developed. Instruction is given by drawing from geometric forms, plaster casts and natural objects. Within the last five years a greater amount of freedom in individual expression has been encouraged, with excellent results. There is less drawing from plaster casts and more sketching from natural forms, as animals, flowers, etc. This change has been particularly forwarded by the new regulations of these schools issued in the fall of 1920.

Drawing also receives much attention in the numerous drawing schools (*écoles de dessin*) located throughout the country, which carry their instruction to the point of composition in the decorative arts. For the most part these schools are subventioned by the state, which exercises a control in regard to instruction. This aid, however, is not given in a uniform manner, but varies according to the needs of the particular region and the demands of the local industries. About twenty per cent. of these institutions have evening classes as well. Drawing as well as the elements of design is also given an important place in the *écoles pratiques de commerce et d'industrie*.

Schools that have to do directly with the training of designers are represented first by the system of national schools of decorative art (*écoles nationales des arts décoratifs*) lo-

cated in Paris, Aubusson, Bourges and Limoges, and industrial art schools located at Roubaix, Saint-Etienne and Rheims. These schools to a considerable extent shape their instruction according to the nature of the local industry. Certain schools connected with national manufactures are also maintained. These are found in connection with the tapestry works at Gobelins and Beauvais and in connection with the ceramic establishment at Sèvres.

Instruction in applied art is also often afforded in the Écoles Nationales des Beaux-Arts and in the Écoles Régionales des Beaux-Arts maintained in various cities of France.

In addition there are a number of special schools of industrial art maintained by municipalities, most notably by the city of Paris. Such schools in the capital are represented by the École Boulle (furniture), École Estienne (printing and bookmaking), École Bernard-Palissy (ceramics, decorative painting, textile design and carving) and École Germain-Pilon (modeling and applied design). The instruction in the first two schools is mainly technical in character, and instruction in design is incidental. The larger number of graduates of such schools enter the industry as highly skilled workers in the shops. Some of these become foremen and managers in various branches of the industry. A few endowed with artistic ability may subsequently become designers. Another small fraction of the graduates find employment directly in design studios of industry while still a few others seek their livelihood as free-lance designers.

Schools serving one particular industry are found in the centers of the manufacturing districts, e. g., the textile school at Lyons. With the exception of a small number of private and syndicate schools, all French institutions are supported by the state, the municipality, or both. Instruction in the state-supported schools is free of charge. There is a small number of private schools which are patronized mostly by amateurs. The syndicate schools are mostly trade schools supported by manufacturers' associations in the different trades, in which

small fees are charged. In several cases design is taught in these schools.

Information would seem to indicate that industrial art schools furnish perhaps fifty per cent. of the designers in the industry and that about thirty per cent. are graduates of fine art schools who have taken up industrial designing for additional income. The remainder consists of self-taught men who come from various branches of industry.

The teachers are generally appointed through competitive examinations and remain in their positions until pensioned. This system is, of course, not one that tends to bring forward the younger element. From thirteen to sixteen years is the general age at which French pupils enter industrial art schools, where they remain from three to five years. Because of the low minimum age many pupils have had only an elementary school education. Admission is granted after the applicant has successfully passed the competitive entrance examinations, which consist of fundamental subjects of general education and the rudiments of drawing and modeling.

The French system of admitting young people to the industrial art schools at the early age of thirteen would seem to fit the conditions of French life. In America it is doubtful that this early admission period would be acceptable. As a people we incline to require a higher general education before entering upon special technical education and in the field of art education this consideration would seem particularly important, as our national life is less suited to furnish students of art with that inspiration and culture which is so important to the development of the French designer. On the other hand, the thoroughness with which the technical side of every craft is taught in most French schools furnishes an example that may well be taken to heart in American vocational education.

The control of all art schools by an elaborate state administration tends to leave little freedom to the individual schools to meet the rapidly changing demands of the day. There is a marked tendency, however, on the part of the state administration to encourage adaptation of the instruction to local

needs. Most schools have easy access to excellent museum collections which are used by the students to collect data on the various periods. The schools of smaller communities depend to a large extent on their libraries for this information.

Many of the French industrial art schools aim primarily to develop highly skilled workmen, trusting to the stimulus of French life and culture to furnish a few pupils with inspiration and incentive to further and higher artistic development.

It is further evident that schools of decorative design constitute only one channel through which industrial designers are developed in France. A number of such designers have received their training in the schools of fine arts and have turned for their vocations to the field of applied design. Again, many after perhaps elementary instruction in drawing and design in the public schools have received almost their entire special training in commercial-design studios.

The general attitude of the manufacturer in France towards schools of applied art is hardly one of enthusiasm. It is often one of indifference. Commonly this indifference rests upon the feeling that the training that counts most from the manufacturer's standpoint is that to be gained in his own design room. There are, however, far-seeing manufacturers who recognize the value of industrial art instruction as given in the schools, avail themselves of its benefits, and are willing to lend their fullest cooperation and support.

Taking the situation as a whole, it cannot be too strongly emphasized that schools constitute but one element in the education of the French designer. The general atmosphere of public and private life must be reckoned as an equally important element. In France art has left its legacies not only in buildings, public squares, sculpture, gardens and great collections, but in the finer treatment of the common things of life. All of these constitute a large influence in the development of the French designer.

ÉCOLE NATIONALE DES ARTS DÉCORATIFS Paris

The École Nationale des Arts Décoratifs was founded in 1767 for the purpose of giving gratuitous instruction to workmen employed in industrial art work. Until 1874 it was conducted as an evening school, when an atelier for decorative art was opened as a day class. The purpose of the school is to train decorative artists, painters, modelers and designers for the art industries. A department of architecture is also maintained.

The school is under the direction of a special council presided over by the Chief of Administration of Fine Arts and has a consulting committee composed of artists and men prominent in the industries. The housing and equipment of the present buildings are inadequate and the students are crowded for space.

Two sections are maintained, one for boys and men and one for girls. Competitive examinations for admission are held twice a year. Candidates must be at least thirteen years of age and not over thirty, in the case of women not over twenty-five.

The examination in the case of boys consists of a test in drawing or modeling from the cast. This may consist of a decorative composition in drawing or modeling or an architectural composition according to the course for which the applicant applies. The duration of the examination is ten hours.

The courses preparing for the art industries are as follows:

Design—Drawing from the antique, ornament and life; composition of ornament; study of plant forms and all natural and evolved motives capable of use in decoration; exercises in composition from the point of view of the different art industries, having in mind their technical requirements; wood, furniture, metals, textiles, printing, binding, glass, ceramics, etc; historic ornament; composition for decorative painting, cartoons for tapestries, stained glass, etc.

Modeling—Modeling from ornament and life; practical

work in the studio with reference to various methods of industrial reproduction in wood, bronze, stone and ceramics; architectural decoration.

In addition there are special courses in descriptive geometry, perspective, mathematics, comparative anatomy and the history of art. Lectures are given by artists and technicians to explain the nature of industrial processes and the requirements imposed by these upon the work of the designer.

There are evening classes in all subjects given in the day designed for apprentices and workers in the art industries.

The school is open from 8:30 a.m. to 5 p.m., and from 8:00 to 10:00 p.m.

The length of the course is not defined as to number of years. Students remain from one to four years, the majority being in attendance three years. All instruction is free of charge and, with the exception of the lectures on the various technical processes, is given individually. The teachers, twenty-three in number, who have in most cases had practical experience in the field in which they instruct and are graduates of French art schools, are employed at salaries ranging from 4,000 to 7,500 francs per year. These teachers do not, as a rule, perform any commercial work.

In the year 1914 the total attendance was 750 boys and 150 girls, about evenly distributed over the various courses. At present the enrollment is about half these numbers.

The emphasis of the school, as stated above, is very much in the direction of training designers able to design for any branch of the art industries after acquiring special technical knowledge through a short apprenticeship in the industry. No designs or craft work made in the school are sold.

By far the larger percentage of graduates of the design and modeling courses enter studios of the various industries. They are required in most cases to serve a short apprenticeship. Such graduates start with salaries of from 300 to 800 francs per month. A small number of the graduates become decorative painters and sculptors.

ÉCOLE BOULLE

Paris

The École Boulle was founded in 1886 to train workmen to design and make artistic furniture and metal work. This school and the three following are supported by the city of Paris and administered by the Préfecture de la Seine.

The school, situated in the furniture district, near the Faubourg Sainte-Antoine, is extremely well equipped, containing lecture rooms, drafting rooms and studios, modeling rooms, a laboratory, library, exhibition rooms and a large number of well-equipped and well-lighted workrooms.

The purpose of the school is to impart a thorough knowledge of the technique and traditions of French furniture making and related metal work, as well as skill in the processes involved.

Students are admitted at the age of thirteen to sixteen years and are submitted to an examination which is competitive in character. The instruction is free for students living within the limits of the city of Paris. Owing to after-war conditions, the number of applicants for admission is not so great as in former years, when only about fifty per cent. of the applicants could be admitted.

In 1919 there were 160 pupils in the furniture classes and 120 in the metal-work classes.

The length of the courses is from three to five years.

Theoretical instruction is given in the morning, from 8 to 12 o'clock and technical instruction and practical work in the afternoon from 1 to 6 o'clock. The former consists of French language, history, geography, arithmetic, geometry, technology, history of art, industrial drawing, sketching, modeling, constructive design and decorative composition.

Technical instruction in the furniture classes includes cabinet-making, wood-carving, turning, joiners' work and upholstery, while the metal work comprises chasing, gold and silversmith work, jewelry making, engraving of steel, cutting of hubs and dies, casting of bronze for furniture, ornaments, repoussé work and metal turning.

The theoretical course of the morning aims to prepare and assist the pupil in his practical work during the afternoon in the workshop. He prepares his working drawings and designs in the morning that are carried out in the afternoon, with the help of the technical instructor. Every effort is made to secure harmony between the artistic and technical instruction. The drawing, painting and modeling course is similar to that in all French schools, i. e., free-hand drawing and modeling from the plaster cast, natural objects and the figure. No craft work or designs made in the school are sold.

The general program of studies is as follows:

1. Analytical study of ancient masterpieces, for the purpose of enforcing the rules of composition and harmony and keeping alive a keen appreciation of fine technique and workmanship.

2. Study of materials, processes of manufacture and tendencies of modern decorative art. These studies are practically applied in the courses on technology, construction and decorative composition.

The pupil, after being graded as the result of his entrance examination, starts the work of the first year in the special branch he prefers. During his apprenticeship, he learns the trade he has chosen and is given, in the theoretical courses and in the workshop, the artistic, technical and professional instruction that will make him a finished craftsman.

As already stated, the term of instruction is three or five years, according to the aptitude of the pupil.

Pupils who follow the three-year course belong to the apprenticeship division; and those who, during the three-year course, show special aptitude, may pursue their studies for another period of two years by entering the division of higher studies.

Higher Studies—Pupils who follow this advanced course continue their professional apprenticeship by participating in the execution of furniture and objects of art, reproductions of pieces belonging to the Musée des Arts Décoratifs or to the collections of the Mobilier National. Otherwise, these pupils execute individual pieces of modern decorative art work which

they have designed in the courses of decorative composition, modeling or construction.

The theoretical courses given these advanced pupils comprise:

Detailed analysis of works in the French styles; free-hand drawings from classical models; furniture or art objects; flower or animal forms or the human figure; constructive designs; full-size working drawings of furniture or bronzes or jewelry, interior architecture; decorative compositions relating to the execution of complete decorative furnishing schemes.

To supplement the instruction the advanced pupils are conducted by their professors through manufacturing plants, museums and palaces. Special lectures are also given these advanced pupils by the most distinguished men in the art industries and decorative arts of Paris.

The exhibition rooms on the top story consist of a dining room and salon. A continuously changing exhibition of meritorious work is held in these rooms, which affords the students an opportunity to compare their work with that of their fellow students and also to gather inspiration and encouragement. The quality of the work shown in these exhibitions is excellent.

The furniture and metal work shown is technically of high quality and in good taste. Many of the drawings and designs, while not executed primarily to develop designers, are superior to the work of schools that devote their entire attention to the development of such artists. There are sixteen teachers who, as a rule, do not perform any commercial work. Their salaries range from 5,000 to 8,000 francs per year.

By far the larger percentage of graduates enter workshops of their respective trades; some become teachers, some technical experts or foremen and others managers of establishments or directors of their own shops or factories. About one-fifth are said to go into designing rooms. These graduates start with salaries of from 400 to 700 francs per month.

Note: Through the courtesy of the editors of *Good Furniture* certain references to the program of studies contained in an article on the École Boulle in the issue of September, 1921, have been made use of in this description.

ÉCOLE BERNARD-PALISSY

Paris

The École Bernard-Palissy was founded for the training of craftsmen and the development of designers and modelers for various branches of industry. It is well equipped with workshops for wood, stone and ivory carving, and for the painting and firing of ceramics.

Pupils enter after having passed competitive examinations in free-hand drawing and geometrical drawing. The school admits only fifty-five pupils each year. They must be of French nationality and from fourteen to sixteen years of age. No fees are charged. In 1919 there were 150 students, about evenly distributed in the various courses.

Instruction is given in the carving of wood, stone and ivory, and in the decorating and making of ceramics. The art instruction of the first year consists of drawing and modeling from casts, geometric design, and water-color painting; and of the remaining three years of the course, of drawing, modeling, perspective, anatomy, composition, and history of art.

There are eight instructors who are selected from among former graduates of the school and from among workers in the respective industries.

The teachers of design receive salaries of from 7,000 to 11,000 francs per year. They are familiar with the technical requirements of the various crafts but do not, as a rule, perform any commercial work.

A majority of those entering remain throughout the course of four years. About forty percent. of the graduates are reported to become designers of textiles, wall papers, posters, commercial work, etc.; the remainder enter the workshops.

ÉCOLE ESTIENNE

Paris

The École Estienne was founded in 1889 for the training of workers for the various bookbinding and book printing trades.

It is well equipped with lecture halls, printing rooms, chem-

ical laboratories, the necessary machinery required in the bookbinding and printing industries, an up-to-date photographer's studio, and a small collection of ancient and modern bookbindings.

There are approximately ninety to one hundred pupils admitted each year between the ages of thirteen and sixteen years, as a result of competitive examinations, consisting of French dictation, arithmetic and drawing. Special students are allowed to enroll by paying a fee of 400 francs for the first and second year, and 600 francs for the third and fourth years. The regular students pay no fees.

The regular course of instruction covers four years. The morning sessions from 8 to 12, are devoted to general and theoretical instruction and the afternoons, from 1 to 5, to practical work in the shops.

The morning program is as follows:

First year—Drawing, history of styles, designing, drawing from the plaster cast and natural objects.

Second year—Composition of decoration, modeling, geometry and drawing.

Third year—Decorative composition, drawing and modeling, anatomy.

Fourth year—Drawing and modeling, decorative composition, anatomy.

The practical courses consist of typographic composition, bookbinding, printing and lithography, wood engraving, etching, lettering and gilding of leather.

Whenever possible, the students work for the trade under the supervision of the instructors. Both the school and the students receive remuneration for this work. The City of Paris gives the school many printing orders which are filled by the students.

Evening classes are arranged for apprentices and workmen in the industry, over thirteen years of age, who desire to add to their technical knowledge or to perfect their craft. These evening courses are of a practical nature and the students, under the supervision of instructors, execute more complicated

problems than they meet with in the industry. The evening classes are considered very important by employers, as they enable workers in the trade to extend their knowledge beyond what would be ordinarily acquired.

In 1919 the total attendance was 260 pupils, divided into fifteen work classes; the first year comprising 120 pupils, second year 70 pupils, third year 40 pupils and fourth year 30 pupils.

The teachers are selected from among graduates of French art schools; and from prominent masters in the trade. The majority are full-time teachers. The staff consists of the director, nine professors and sixteen technical instructors, who receive salaries ranging from 5,000 francs to 11,000 francs per year, according to their classification and length of service.

About one-quarter of the number of the students who enter the course remain throughout the four years. A large majority of the graduates are placed in the industry by the school and achieve responsible and well-paid positions, as they are eagerly sought for by the industry. At the start they receive salaries of from 300 to 800 francs per month. Occasionally a graduate enters the designing room, but very rarely, as this school does not profess to develop designers.

The artistic and technical standards of this institution are very high and its value to the industry is considerable, largely on account of the fact that the production of medium-priced machine-bound books is considered, as well as the production of expensive hand bindings. The relation between the practical and the artistic is well balanced and high skill and good taste are evident in the work of the pupils.

ÉCOLE GERMAIN-PILON

Paris

The École Germain-Pilon was founded for the training of craftsmen and designers for the various branches of applied-art industries. It is fairly well equipped with workshops for wood-carving, jewelry making, cabinet-making, and the

manufacture of ceramics. There are also studios for modeling, casting, decorative painting and stage decoration.

The school does not aim to train designers for any special branch of the industry, but rather to give its pupils such artistic and technical training as will enable them to enter any industry that requires design and to become competent designers after having mastered the technical requirements of the particular industry.

Pupils are admitted after having passed competitive examinations in free-hand and geometrical drawing. They must be of French nationality and over thirteen years of age. There are about fifty-five pupils admitted each year. The enrollment for 1919 was 150.

The subjects offered are as follows:

First year—Drawing from plaster casts, modeling, molding, geometrical design, elements of architecture, history of art, water-color painting.

Second year—Drawing, modeling, molding, history of art, decorative composition, perspective, anatomy, furniture designing, cabinet-making.

Third year—History of styles, history of costumes, special design courses for embroidery, textile, and wall papers.

Drawing from the cast and from natural objects forms the basis of all instruction. Much attention is given to sketching and drawing from memory. A general course in design is given which is coordinated with practical work in the workshops of the school.

There are eight teachers, mostly graduates of French art schools, and a number of technical instructors who are chosen from among experienced men in the profession. The teachers of design are usually familiar with the technical processes of the various crafts, but do not perform any commercial work. A majority of the instructors are full-time teachers, and about one-fifth are practical men selected from the various industries giving part-time service. Salaries range from 7,000 to 11,000 francs per year.

The large percentage of graduates enter the workshops of

the various applied-art industries. Others become designers of textiles, wall papers, laces, furniture and metal work, ceramics and interior decorators. The latter receive salaries in beginning ranging from 300 to 800 francs per month.

ÉCOLE MUNICIPALE DE DESSIN ET D'ART APPLIQUÉS A L'INDUSTRIE

Paris

There are a number of municipal schools in Paris, the object of which is to supply an apprentice training for young girls in various crafts and vocations. The one described here, founded by Élisabeth-Lemmonier, aims to provide for girls instruction in applied art equivalent to that offered for boys in the schools Germain-Pilon and Bernard-Palissy. The school is supported by the city of Paris and is administered by a council consisting of one representative of the Préfecture de la Seine, one art inspector, one member of the Ministry of Industry and Commerce, two members of the Patrons Committee and the directress. It has an advisory committee of manufacturers which, however, exercises no influence on the nature and methods of instruction.

An elementary course and an advanced course, both of three years, are maintained.

Pupils are admitted to the elementary course at the ages of thirteen to fifteen years, and for the higher courses at the ages of fifteen to twenty years, after being submitted to an examination. The average attendance in each class is forty-eight pupils. The number of students applying is so large that the opportunity for selection is very considerable.

The elementary course provides both a good general education and a sound foundation in drawing, water-color, modeling and the elements of composition and design.

The advanced course comprehends classroom instruction in composition of ornament, architecture, history of art, comparative anatomy, practical hygiene, political economy and labor legislation. There is also instruction in regard to the materials and processes of manufacture of laces, embroider-

ies, tapestry, jewelry, silver, furniture, ceramics, glass, enamel, leather and ivory.

The professional instruction includes architectural design as related to interior decoration, design for wall papers and textiles and design as applied to the above-mentioned materials.

Practical craft classes in embroidery, lace making and jewelry, artificial flower making and pattern making for dressmakers are also maintained.

Work in designing forms the major part of the instruction and enables a student to adapt himself to any of the various branches of applied art. None of the designs or craft work made by the pupils in the school are sold.

There are eleven instructors who receive salaries ranging from 5,000 to 8,000 francs per year. The teachers of design are thoroughly acquainted with the technical requirements of the various crafts but do not perform any commercial work.

A large part of the graduates enter the workshops of the industries as artists, embroiderers, lace and artificial flower makers, etc. A small number go into the designing rooms of the textile and wall-paper industries.

ÉCOLE PROFESSIONNELLE DE LA CHAMBRE SYNDICALE DE LA JOAILLERIE

Paris

The École Professionnelle de la Chambre Syndicale de la Joaillerie was founded in 1864, for the technical training of apprentices and workmen for the jewelry and silversmith industry. The school is administered by the syndicate of jewelers, which also supports it with the assistance of an annual subsidy from the Minister of Commerce. It is well equipped on the technical side, with workshops and all the necessary machinery for the making of jewelry and silversmith work. The purpose of the school is to give workers and apprentices a more complete technical and artistic education than it is possible to obtain in the workshop of the average jewelry establishment of today. Design is only an incidental

subject and forms but a small part of the course. All instruction is given individually.

Pupils are admitted at the age of sixteen years or more. They pay a fee of two francs per month. Between seventy-five and one hundred pupils are admitted each year. Since the war the attendance of the school has somewhat fallen off and the opportunity for selection is small. Instruction is given during two hours in the evening.

There are two courses offered, of from one to three years in length:

(a) *Elementary Design Course* (for boys and girls)—Drawing and modeling from samples, perspective and geometry, composition, and drawing from flowers and animals.

(b) *Course for Apprentices*—The tools and their use, practical work in hammering, filing and soldering, making of pins, chains and brooches, rings, pendants and bracelets, etc.

In 1919 there were 150 pupils in the apprentice courses. The elementary course gives the student sufficient knowledge of design to better understand the models placed before him for subsequent execution. The apprenticeship course makes him acquainted with the proper use of the various tools and materials. The teachers are all practical jewelers. They receive salaries of from 7,000 to 12,000 francs per year for full time.

ÉCOLE NATIONALE D'ART DÉCORATIF

Aubusson

The École Nationale d'Art Décoratif d'Aubusson was established in 1883, for the training of workmen and designers in the art of tapestry weaving. The school is supported by the city and state and is administered by the chef d'administration, a supervisor and the director. There is a consulting committee composed of local manufacturers of tapestries.

The school is amply equipped on the technical side with weaving sheds, studios, storerooms and a library. The raw material used in the school is donated by the local manufacturers.

The purpose of the school is to train workmen and designers

for hand-woven tapestries and to give them both a knowledge of the technique of weaving and of design.

Its teachers are selected from among graduates of French art schools and also from among accomplished masters of the industry.

The following courses are provided:

Decorative Painting Course—three mornings a week, 8 to 12.

Design Course—six evenings a week, 7 to 10.

Decorative Design Course—four afternoons a week, 2 to 4.

Course in Drawing on Squared Paper—two afternoons a week, 2 to 4.

Practical Weaving—every morning from 10 to 12.

Three years are devoted to the courses.

There are no entrance requirements. Boys may enter at eleven years of age and girls at ten. In 1921 there were twenty-four boys and forty-five girls in the decorative painting and design course; forty-six boys and sixty-four girls in the elementary drawing course; two boys and two girls in the course for drawing on squared paper, and twenty pupils in the weaving class.

It was stated by the director that to the extent the school confines itself to the instruction of copying historic examples it is supported by the industry, but where the school attempts to leave this historic ground it meets opposition from the industry. To overcome this attitude the director of the school has of his own initiative solicited modern designs for tapestries from well-known artists, and has his pupils execute these designs in order to show that the technique of weaving is equally well suited to modern design or to period design.

This institution is one of the most efficient and progressive schools in France, and the excellent quality of the work as shown in the annual exhibits by the pupils serves to prove that good results may be obtained without devoting an unproportionately long time to the monotonous task of drawing from the plaster cast. The enthusiastic personality of the director undoubtedly has a great deal to do with the high standard of work attained in this small school. Some of the

manufacturers pay their apprentices to take courses at this school. Small scholarships are given to meritorious pupils.

There are three teachers receiving salaries ranging from 3,000 to 10,550 francs per year.

No craft work or designs executed in the school are sold, as the local manufacturers object to such practice.

Most of the graduates enter the workshops of the local industry and about five per cent. go into the designing rooms. Such graduates start with a wage of 20 francs a day.

Many of the prominent designers of the Aubusson tapestries have attended this school. The course is considered by the industry as a very important means of training both designers and workmen.

ÉCOLE NATIONALE D'ART DÉCORATIF DE LIMOGES

Limoges

The École Municipale des Beaux-Arts Appliqués à l'Industrie was founded in 1868, and in 1881 it became a national art school. The object of the school is to train boys and girls to enter the artistic side of the main industry of Limoges—the principal center of French ceramic production. The school is amply equipped on the technical side with laboratories, modeling and drawing rooms, lecture halls, ceramic workshops and an excellent ceramic museum. The teachers are selected from among graduates of the French Art Schools. It has no advisory committee.

Students are admitted between the ages of twelve and sixteen years as a result of competitive examination, and no charge is made for instruction.

The school provides a general preparatory course and a special course. The former is planned as a general art education and the latter is for those preparing themselves for the ceramic industry, and enrolls many apprentices in the trade. In 1919 there were seventy-eight pupils in the preparatory course and forty-three in the special course.

The school is open the entire year with the exception of the

month of June. The hours for girls are from 8 to 12 and from 1 to 3; and for boys from 11 to 2 and in the evenings from 8 to 10. The length of the course is from three to five years.

The courses provided are as follows:

(a) *General Course*—Geometrical drawing, perspective, architecture, free-hand drawing, elementary design, flower drawing, figure and animal drawing, anatomy, composition of ornaments, history of ornaments, principles of botany as applied to ornamentation, studies and sketches from ceramic products, history of art, modeling of flowers, animals and figures, special instruction for decoration of ceramics, particularly porcelain.

(b) *Special Course*—Flower painting in water color, oil, and pastel; china painting; etching for ceramics, drawing from plaster casts and from the figure; drawing from live plants; painting on plates, cups, vases, etc., with technical explanation as to choice of color, enameling, heat of ovens and kilns.

The students are first given a thorough training in drawing from casts and natural objects. Later on they are required to make a sketch for a ceramic decoration and by carrying out this sketch in the actual material become familiar with the various ceramic processes and technical requirements.

Instruction in design forms the major part of the course, technical instruction being given to elucidate the various modifications necessary to meet technical requirements.

There are eight teachers and one lecturer, their salaries ranging from 5,000 to 11,000 francs per year. The teachers of design have had some practical experience in the manufacture of ceramics. These teachers do not, as a rule, perform any commercial work.

Graduates entering the industry are required to serve a short apprenticeship to acquire additional practical experience. No craft work or designs made in this school are sold. It is stated that about sixty per cent. of the pupils remain throughout the whole course. By far the larger percentage of graduates enter the workshops of the industry as china painters, decorators, and ceramic workers. About one-fifth go into

the designing room. Such graduates start with salaries of 300 to 500 francs per month.

A fairly large percentage of French ceramic designers have been trained in this school. As regards preparation for design the course is considered by the industry as an important means of training. Ceramic designers in France are relatively poorly paid.

ÉCOLE NATIONALE DES BEAUX-ARTS DE LYON

Lyons

The École Nationale des Beaux-Arts de Lyon was founded for the training of young men and women for the following pursuits: painting, sculpture, architecture and commercial design. Special attention is given to the development of textile designers.

The school is supported by the city and the state, and is administered by a council of administration consisting of the mayor, the president of the Chamber of Commerce, inspector of academies, director of the École Nationale des Beaux-Arts, four members of the municipal council, and nine members selected from among the artists and manufacturers of the city.

The school is housed in an old government palace having large and well-lighted studios. A complete collection of plaster casts and stuffed birds supply the students with models. Its teachers are selected from among artists, architects, and designers, and are appointed by the Ministry of Public Education and Fine Arts, after being submitted to a competitive examination. They are full-time teachers.

Students are admitted at the ages of from fourteen to twenty-four years. No fees are charged. Applicants are required to pass the entrance examinations which are competitive in character. The number of pupils attending the school varies from 300 to 500.

Courses provided are as follows:

I. *Elementary Drawing Class*—(a) Drawing from plaster

casts and ornaments. (b) Drawing from life; lectures on anatomy, history of art, and geometry.

II. *Fine and Applied Art Classes*—Painting, sculpture, architecture; flower painting and its application to industry; decorative designing and modeling; textile design.

The length of the courses is as follows: two years for the elementary drawing class, and three to four years for the fine and applied art classes. The hours of instruction are from 8 to 12 and from 2 to 5.

All students are given a fundamental course in drawing from plaster casts and natural objects, also lectures on anatomy, history of art, perspective, and decorative geometry, and stereometry for architects. After the students have passed successfully through the elementary drawing class they are admitted to the fine and applied art classes, where they receive individual instruction in painting, modeling, architectural drawing and design, and designing for the industries.

The course of textile design is considered the most efficient in France, combining technical instruction with individual artistic development. It is taught by a practical textile designer whose forefathers also were textile designers. The course involves—

I. Drawing of flowers in natural aspect, (a) in black and white, (b) in gray, (c) in color.

II. Conventional drawing of flowers.

III. The development of decorative motives, and adaption to textile designs.

IV. Study of the use of textiles and of historic and modern garments.

The textile manufacturers contribute to a fund which is used for sending the most promising pupils to Paris, where they study the fashions of the foremost couturiers and visit theatres and races, for the purpose of making sketches which they use later for original work.

Some of the textile designs developed in this school have been carried out in the actual material by the pupils of the *École Municipale de Tissage de Lyon*. The cooperation of

those two institutions has been of great value in familiarizing the designer with the technical requirements of the machine. None of the designs made in the school are sold.

The pupils of the textile course are required to copy many drawings in the famous Textile Museum of Lyons in order to obtain a thorough knowledge of period design. Chevereux's work on color is used as a basis for instruction. Lectures are given by the professors explaining the technical requirements which influence textile design. Students are required to consider cost of production in making their designs.

There are three instructors in each of the courses. Their salaries are from 5,000 to 7,000 francs per year. The instructor of the textile design course was a practical textile designer but no longer works for the trade, as both the lack of time and his social position as a teacher render this impossible.

The textile course contains both boys and girls. It is stated that the boys obtain superior results. Most of the pupils are children of textile designers or workers.

About ninety per cent. of the students are reported to remain throughout the whole course. By far the larger percentage of graduates enter the design studios of textile establishments. The remaining graduates find employment in independent design studios in Paris or as free-lance designers. They begin with salaries of from 300 to 1,200 francs per month. Some of the eminent designers in the trade have been graduates from this school. Textile designers in France are relatively well paid.

The course in design at the École des Beaux-Arts is considered by the industry as an important means of training. There is considerable cooperation from the textile industry, although the textile houses of Lyons are inclined to buy their designs in Paris, as it is an accepted belief that only Paris can produce the best art. Lately, however, there is a tendency to acknowledge the high quality of design as developed in this school by greater practical support.

There is a municipal school of design in the city that prepares girls for entrance into the École des Beaux-Arts.

ÉCOLE MUNICIPALE DE TISSAGE

Lyons

The École Municipale de Tissage de Lyon was founded for the instruction in weaving of apprentices and workmen of the textile industries.

The school is supported jointly by the city of Lyons and the Chamber of Commerce. It is administered by a council consisting of a municipal counsellor and an art inspector, a representative of the Ministry of Industry and Commerce, and the Administrative Commission of Industrials of Lyons. An advisory committee of manufacturers insures an intimate contact of the school with the problems and needs of the industry.

It is well equipped on the technical side with weaving sheds containing hand looms as well as the most modern power looms, and also with a number of laboratories. The purpose of the school is to train workmen for the textile industry and to acquaint them with the use of new types of machines. No attempt is made to develop designers.

Students are admitted at the ages of thirteen to fifteen years and are submitted to an examination in French dictation, mathematics and geometry. The fees are 175 francs per year.

Courses are provided in the technology of silk weaving and the theory of silk manufacture and its practical application. Forty-three hours per week are divided into eighteen hours of theory, twenty-three hours of practice and two hours of design. The course is of one year's duration. In 1919 there were thirty students in the textile courses.

The students are first taught the use of hand looms to familiarize themselves with the fundamental principles of weaving. After having mastered this they are given instruction on more complicated power looms. Besides the practical course there is a technical course in which a knowledge of the technology of weaving is given, as well as instruction in the nature of fibres, principally silk, and their treatment.

There is some instruction in drawing and designing for the weaver's use and in card cutting for Jacquard weaving.

There is one instructor of design who is a practical textile designer working for the industry in his spare time. Some of the fabrics turned out by the students are bought by the industry, which also furnishes most of the raw material used in the school. Practically all graduates of this school enter the industry as workmen, i.e., weavers, dyers, carders, card cutters, etc.

ÉCOLE NATIONALE DE CÉRAMIQUE ANNEXÉE

A LA MANUFACTURE NATIONALE DE SÈVRES

The École Nationale de Céramique was founded for the development of expert technicians for the ceramic industries. The school is supported by the state and administered by the Ministry of Fine Arts, the director of the Manufacture, and the director of the school. There is no advisory committee, but a number of prominent manufacturers of ceramics are members of the jury of examination. The institution is well equipped on the technical side with chemical laboratories, modeling rooms, turning rooms, furnaces, and lecture halls. The famous ceramic museum of the Manufacture de Sèvres is at the service of the student.

Students are admitted at the age of eighteen years. All instruction is free of charge. Only seven pupils are admitted each year—five boys and two girls. Inasmuch as the number applying is about three times as many as those admitted, the opportunity for selection is considerable. The mornings are devoted to theoretical instruction and the afternoons to the practical work.

The length of course is four years. In 1919 there were about thirty pupils in the ceramic classes.

There are eleven teachers in these courses, selected from among graduates of the school, or from among men prominent in the industry. Their salaries range from 5,000 to 7,000

francs per year. There is one teacher of design who is a graduate of a French art school.

The effort of the school is to develop technical ceramic experts qualified to fill any position in this important French industry. The designer is only an incidental product, and instruction in design forms only a small part of the course. Theoretical instruction is given in classes, while the practical instruction is given individually. By far the larger percentage of graduates enter the industry as organizers, producers, expert technicians and superintendents of manufacture. Only a small percentage of the French ceramic designers have had experience in this school, and as a preparation for work in design the course is not considered by the industry as an important means of training.

ÉCOLE DE LA MANUFACTURE NATIONALE DES GOBELINS

This school was founded in the seventeenth century for the training of designers and weavers of Gobelin tapestries.

The school is supported by the state and is administered by a director and three instructors who are appointed by the Ministry of Public Education and Fine Arts. There is no advisory committee. The school has no museum collection, but a great number of valuable historic tapestries are brought to this institution for repairs, which offer the pupils an excellent opportunity for study. The teachers are former graduates of the school. Only four to six pupils are admitted to the tapestry course each year, entering at the age of sixteen and remaining for about two years in this class, after which they enter the manufacture as Gobelin workers. The plan of instruction is as follows:

(a) *Elementary Course*—Drawing from plaster ornaments, head and figures, drawing and painting from flowers, stuffed birds, etc.

(b) *Special Design Course*—Designing and composition for tapestry weaving, color work and technical instruction, paint-

tem carries art instruction through the secondary schools to its highest and best expression in the specialized schools of applied art.

Free-hand drawing is compulsory in the primary schools, where the subject is taught by the class teacher. A distinctive characteristic of the work in the secondary schools is the requirement of algebra, technical drawing, and one foreign language from all students.

In the Industrial Drawing Schools of the smaller towns classes in free-hand and mechanical drawing, and in designing and color work are provided.

Of a higher grade are the Handicraft Schools and Trade Courses for those engaged in the industries. These courses cover two or three years and include workshop training. Examples of this type of school are the Industrial Art Schools of Zurich and Berne.

The aim of the industrial art divisions of the industrial schools is to improve workers, and especially designers, on the art side of their crafts. Only the larger cities, such as Zurich, Berne, Geneva, and Basel have schools of this type. Applied-art instruction is also offered in the courses of other industrial schools.

A federal law which compels the trade apprentice to attend a continuation school during the three or four years of his apprenticeship affords an opportunity for a great number of young people to obtain instruction in drawing and other subjects relating to their respective trades which the trade itself does not give. This scheme is highly approved of by the manufacturer and its results deemed extremely beneficial as tending, among other things, to develop better taste in the workers in the various trades.

The applied-art schools have been developed to a high standard of efficiency and in many of their activities may serve as models. A very large proportion of the designers in Swiss industries are graduates of these schools, and, in consequence, they exert a strong influence in maintaining a high standard of artistic attainment in the industries of the coun-

try. The equipment of the schools is excellent. Because of the reduction in the educational budget, due to the war, the schools suffer at present from lack of funds. Without exception the schools are supported by the municipality, or by the municipality, canton, and state.

Not only does the government give direct financial assistance to the schools but it also assists with orders for the work of pupils and graduates. An example of this aid is afforded by the highly artistic posters used by the Swiss railroads in their extensive advertising propaganda. A large majority of the designs of these posters are the work of former pupils of the art schools. It is reported that about ninety per cent. of all designs used in Swiss industries are produced by Swiss designers. About two thirds of these designers are said to be employed in establishments, the remainder to be working as free-lances.

The marked success of these schools, both from an artistic and from a practical standpoint is largely due to the very high quality of their teaching staffs. Most of the teachers are graduates of the Swiss applied-art schools, and in many instances are highly accomplished artists or designers. Their time, when not teaching, is often devoted to practical productive work, and many of them spend part of their vacations at work in large industrial plants in order to increase their knowledge of modern machine requirements. The director and head teachers of the Zurich school are artists of eminence, and they are allowed sufficient free time to pursue their artistic work, the burden of routine teaching being carried by the regular instructors. The large influence of the director and head teachers results mainly from their personalities and their work as master artists. Their chief task is the creation of a high artistic standard within the school and the inspiration of a limited number of pupils to the highest possible efforts.

The day students in these schools are young men who intend to become designers and craftsmen, as well as apprentices working in the trades. In some schools there are also

special classes for assistants and masters. Before a pupil is admitted he is required to pass an examination to determine his artistic and technical abilities. The number of pupils is strictly limited to a definite number to assure the best instruction. The majority of the graduates of the applied-art schools find employment in the various related industries as designers, weavers, sculptors, jewelers, printers, lithographers, advertising artists, etc., and many become highly successful free-lance designers. The methods of instruction are progressive, and in the estimation of the pupil and the employer the results are considered of the highest quality. A point to be stressed is that in the higher branches individual instruction predominates.

The museum of the applied-art school in Zurich is a model of its kind, consisting of a small but well-selected and well-displayed collection of craft products, mostly modern. The same institution arranges temporary exhibits treating one side of a problem at a time. One of the recent exhibitions dealt with modern German posters, one with modern and old books, and another with the various technical requirements of reproduction by printing. For these exhibitions no efforts are spared and only the best is shown.

GEWERBE SCHULE

Zurich, Switzerland

The Gewerbe Schule, Zurich, was founded originally as an applied-art school (Kunstgewerbe Schule) for the training of designers and craftsmen for the industrial arts. Since 1911 the institution has been united with the Zurich Trade School (Gewerbe Schule) under one administration and housed in a common building. It was found that the benefits derived from a close cooperation between the technical and artistic sides of the various applied-art industries was of value to both. The technician in this way came to a better understanding of the value of good design, while the designer in turn was able to acquire knowledge and inspiration from the technical departments.

The purpose of the school is to train designers and craftsmen and also to develop highly skilled workmen. The main object is to develop applied-art designers who are able to create designs of the highest order and thereby advance the standard of Swiss designs, and not to train designers who are merely copyists and who only adapt others' ideas for a specific technical purpose.

The school is supported by the state, the canton, and the city, and is administered by the Ministry of Education and the director of the school. It has an advisory committee consisting of artists, manufacturers, and master craftsmen. A strong contact is maintained with the industry through the workmasters. It is well equipped with drawing rooms, workshops, lecture halls, libraries, and exhibition rooms. The applied-art museum attached to the school contains a large collection of historic examples and also a separate collection of modern craftwork, all of which has been selected with great care from craft products of various countries, and all objects are selected with a view to serving as examples for the students of that which is best and most characteristic in each country.

Pupils are admitted at the ages of twelve to twenty-three years, after demonstrating that they will profit by the instruction given. The opportunity for selection is very great as all classes are limited to a small number so as to insure efficient results, and the number applying is much greater than the number enrolled. The following courses, of from two to five years' duration, are given in the Applied Art Division of the school:

I. *Practical Applied-Art Courses*. Preparatory Class—with courses in drawing and painting from objects, nature study, modeling, free-hand drawing, lettering; followed by courses for lithographers and illustrators, bookbinders, printers, metal workers, decorative painters, interior decorators, embroiderers and fashion draftsmen; and special courses in painting of wooden boxes.

II. *Apprentice Courses* for bookbinders, printers, gold-

smiths and engravers, lithographers, painters, silversmiths and chasers.

In 1915, there was an average of twenty pupils in each of the applied-art classes, twenty-five pupils in each evening class for masters and assistants and sixty-five pupils in each apprentice class.

All instruction in drawing is given from the point of view that drawing should be a means to an end and not an end in itself. Theoretical instruction is given in classes and practical work given individually.

Designs and craftwork made by the students are sold by them after the approval of the school has been obtained. In this way only the very best work is sold and the school retains its high standing in the industry.

The teachers, fifty-seven in number, are selected from among eminent artists, craftsmen, and workmasters. The director of the school is a well-known artist and he, with the aid of his staff, exerts a strong artistic and personal influence on the students. The head teachers in each department are artists or craftsmen who continue to work in their own professions and in this way influence the pupils through their personal accomplishments. Their salaries range from 5,000 to 12,000 francs per year. They are not bound to strict routine teaching which would prevent them from working in their own profession.

About eighty per cent. of the students entering are reported to remain throughout the entire course. By far the larger percentage of graduates of applied art courses enter the designing rooms of the industry, while about twenty per cent become free-lance designers. Such graduates receive salaries ranging from 250 to 400 francs per month. Many of the successful Swiss industrial designers have been graduated from this school and manufacturers report that it exercises a strong influence in advancing the standards of industrial design.

The exhibition of the pupils' work at the school showed a very high quality both in the preparatory class and that

representing the classes in illustration and lithography, jewelry and metal work and embroidery and fashion drawing.

ÉCOLE DES ARTS ET MÉTIERS

Geneva, Switzerland

The École des Arts et Métiers, was founded for the training of designers and highly skilled workmen. It is supported by the state, the canton and the city of Geneva and is administered by a commission of thirty people, including industrials, artisans, artists and workmen. The director together with five heads of the departments constitute the school council. The director is appointed by the president of the Department of Public Education.

Pupils who have passed the seventh year in the primary school or the first year of a professional school, and who are over fourteen years of age, are admitted, as well as those who cannot meet these requirements but pass entrance examinations. Swiss pupils pay no fees but others pay 20 francs per term. About fifty pupils are admitted each year.

Courses are given in Decorative Painting, Enameling, Engraving, Gold and Silversmithing, Jewelry, Carving in Wood and Stone, Iron Work, Embroidery and Batik. The plan of instruction in the Applied Art Division is as follows:

General Course—Preparatory course in design; ornamental design; drawing from figure or cast; modeling from figure and ornament; drawing of elementary architectural design; decorative composition; designing for embroidery.

Practical Course—Decorative painting, enameling, chasing, engraving, jewelry, and goldsmithing and silver-smithing; coloring of metals; carving in stone; carving in wood; iron work; molding.

Nothing made in the school is sold.

There are sixteen teachers who are for the most part graduates of either French or Swiss teachers' training schools or applied-art schools. Most of these teachers have had practical experience.

About sixty per cent. of those entering remain throughout the entire course. By far the larger percentage of graduates enter the workshops of the various industries, and about twenty per cent. go into the designing rooms. Such graduates receive salaries ranging from 250 to 400 francs per month.

KANTONALES GEWERBEMUSEUM (KUNSTGEWERBLICHE LEHRANSTALT)

Bern

This school is a department of the Applied Art Museum and was founded for the training of designers and workmen in wood-carving, ceramics and lace making, and its main object is to improve industries carried on in the homes and to stimulate the taking up of new crafts by the peasants to assist the meagre returns from their farms and thereby to discourage emigration. In addition to the traditional wood-carving and lace making, particular attention is paid to tapestry weaving, hand decorating of wooden boxes, and making of split-wood baskets.

The school is supported by the municipality and administered by a director and an advisory committee consisting of an artist and five persons connected with the industries. This committee exerts a practical as well as an artistic influence upon the character of the instruction given in the school. The museum contains an excellent collection of old and modern products of applied art.

The minimum age for admittance is fourteen years. No entrance examination is required, but applicants must show that they possess sufficient knowledge to profit by the instruction given. The number attending this school is so small (twenty-two in 1919) that it is possible to give excellent individual instruction adapted to the personal needs of the pupil. There is no particular plan of instruction; the pupils working with their teachers in large master studios, each occupied with his own problem. All instruction is based upon the execution of practical problems for the industries.

There are three teachers, graduates of the Swiss art schools,

who give part of their time to instructing. One teaches drawing, one is a practical ceramist and one a general technician in metal and wood work. The latter two are practical workers in the industries. The salaries received range from 3,500 to 8,000 francs per year.

The length of time the pupils remain in the school depends largely upon their ability upon entering. Some remain several years, whereas others attend for but a short period in order to acquire a technical knowledge of a certain craft. The larger percentage of the pupils eventually become designers, of which about one-third are freelancers.

Both craft work and designs made in the school are sold, the sales in 1918-19 amounting to 1,930 francs.

ALLGEMEINE GEWERBESCHULE

Basel, Switzerland

The Allgemeine Gewerbeschule was founded for the training of designers and skilled workmen for the various applied art industries. Its administration is in the hands of the director of the school, a state inspector and a committee of artists, manufacturers and workmasters. This latter committee of supervision exerts a considerable influence upon the methods and nature of the various courses offered in the school.

There are all-day courses in drawing and painting, and in various applied-art subjects; half-day courses for apprentices in lithography, designing, printing, bookbinding and jewelry; and evening courses. The length of course varies from three to five years. In 1919 there were 264 pupils in the day classes and 419 evening pupils.

The program of instruction in the all-day applied art courses is as follows:

Decorative Painting Classes—Decorative painting, treatment of flat surfaces, treatment of interiors from a color standpoint, lettering, figure drawing.

Classes in Illustration—Practical courses in lithography, applied graphics, nature study for the various graphic techniques.

Class for Sculptors—Modeling and carving in stone and wood, drawing from the figure.

Decorative Design and practical instruction in Embroidery.

There are twenty-eight teachers who have been selected from among graduates of Swiss art schools and who receive salaries ranging from 3,000 to 8,000 francs per year.

This school gives as much attention to the development of designers as to the training of highly skilled workmen. The designer is the main product of the day courses, while the half-day and evening courses emphasize the development of the trained workman. Some of the craft work made in the school may be purchased by the pupils upon paying the cost of the raw material.

About eighty per cent. of the pupils entering remain throughout the entire course. By far the larger proportion of graduates of the day course enter the designing rooms of the industries and a small number become free-lance designers. Such graduates start with the modest salary of from 200 to 500 francs per month. Most of the graduate apprentices of the evening course remain in the workshops of the industries as painters, photographers, designers, lithographers, printers, bookbinders, sculptors, engravers, chasers, etc.

SCHOOL FOR EMBROIDERY AND LACE DESIGNERS (INDUSTRIE UND GEWERBEMUSEUM)

St. Gall

The School for Embroidery and Lace Designers connected with the Industrie und Gewerbemuseum at St. Gall is a very specialized and efficient institution. It was established in 1878 by progressive business men and has since been an important factor in the development of the city's leading industry. The school receives subventions from the state, from the canton, and from the city, and also donations from the manufacturing interests of the city. Fees are nominal, being thirty francs a year.

As in the case of so many European special schools, the

numbers dealt with are not large, averaging about thirty during the year, of which about one-third are girls. The students stay three, and in some cases, four years, and on the average from ten to twelve complete the course of work. Students must have completed the compulsory common-school course to be admitted, and in consequence are fifteen or sixteen years of age.

The school addresses itself to the one problem of training designers, and is assisted in this work by the fine collection of laces and embroideries displayed in the museum in the same building and also by the extensive library and collection of samples collected in book form.

Students spend their first year largely in free-hand drawing and sketching of a general nature and enter upon the special work in design in their second year. Hand embroidery is taught in the school, various materials being utilized.

Graduates of the school are to a certain extent employed by the manufacturing concerns in St. Gall. A larger number, however, operate as free-lance designers and sell their designs to the manufacturers. A number of the graduates find their way to other countries and continue their work as designers.

INDUSTRIAL ART EDUCATION IN GERMANY*

Dr. James P. Haney

Elementary education in Germany is given to all pupils in the Folk schools between the ages of six and ten. Those who do not intend to go into the secondary schools remain in the Folk schools until the age of fourteen; others who would advance further enter the secondary schools at ten, to remain from six to nine years.

There are three main divisions of secondary schools, which may be termed: classical, semi-scientific and scientific. The requirements in classical schools (Gymnasien) call for Greek, in semi-scientific (Realgymnasien) schools, for mathematics and Latin, in scientific (Ober-Real) schools, for modern languages, science and mathematics. Each of these schools is organized with a nine-year curriculum. Occasionally, however, a secondary school will be found which offers only the first six years of the nine-year course. This fact is indicated in the name of the school by prefixing "pro"—as pro real gymnasium, which indicates a semi-scientific school, accepting its pupils at the age of ten and graduating them six years later. All of these schools are for boys. Schools for girls are less definitely organized.

Graduates of the Folk schools are not eligible for advancement in the secondary schools, but are required in many of the German states to follow continuation courses during the period of their trade apprenticeship. After the completion of the continuation course in the Fortbildung school, the students may pursue a journeyman's course, in the "Gerwerbe" or industrial school. The two latter institutions are frequently found in the same building, but are separate schools, generally under different principals, with the continuation courses given from early morning until seven in the evening, at which time the industrial school courses open for older students.

*Transcript from a Report on "Art Teaching in German Schools" made to Board of Education of the City of New York, 1913.

Many of the older continuation and industrial schools were originated and supported by the guilds or associations of workmen. A number are still supported in part, but the tendency on the part of the employer is to demand more and more in the way of state and city support, so that the time cannot be far distant when public funds will defray the entire cost of their maintenance.

Drawing is taught universally throughout the German elementary school system. It has long since passed, if indeed it ever knew, the stage of the educational "frill," and is regarded as an essential in the training of all pupils, boys and girls, no matter what their future vocations may prove to be. The instruction in drawing is for the most part given by grade teachers to their own pupils, but in the higher classes, it is frequently the practice to assign a teacher interested in the subject, to teach the work in several of the upper grades.

In most Folk schools, the drawing in the lower classes is done in the classroom and in the higher classes in a special room. Pupils furnish their own equipment, including pencils, paper, brushes, crayon, colors, etc.

The drawing taught in the elementary schools is succinctly stated in the words of many teachers as instruction given "that the pupil may learn to see." Drawing lessons are usually given in all but the lowest of the eight Folk school years. In some cases no formal instruction is given in the first two years, but the children of these classes are asked to draw from imagination in connection with other lessons. Instruction is not given in these "drawing lessons from fancy," and the work done, while free, is of the most elementary character.

The form of instruction in all drawing above the lowest grade is that of individual aid. General explanation, or analysis, of the model is rarely given, and indeed at times is difficult, as the models themselves are of a very varied character. The supply of models is generally ample, and it is not unusual to find in a school several cases full of mounted leaves, butterflies and other insects, seed vessels, shells, feathers and still life. The simpler models are used in the lower grades, while in

the higher classes there appear in the collection, numbers of vases, boxes, bottles, baskets, waxen fruit and flowers, candlesticks, tools, etc., together with a score of small animals and fishes mounted in attractive fashion.

In the drawing lesson, individual objects are placed before individual pupils who begin work forthwith. Sometimes a hint or two will be given upon the blackboard, but the board itself is infrequently used. The lesson begun, the teacher moves from pupil to pupil, correcting individual errors, while the class as a whole proceeds to draw carefully and very slowly. This slow, precise drawing is a marked characteristic of the work of all grades. As each pupil completes his outline, he prepares his colors and lays on the necessary tone or "wash," completing his work with the same careful and labored stroke with which he began it. Class criticism is very infrequent, and illustrations of technique confined so far to personal suggestion that it may fairly be said that class teaching, as such, is seldom to be observed in an elementary drawing room. What is seen is the method of the drawing studio applied to the teaching of beginners. To any aesthetic quality of the drawing, reference is rarely, if ever, made.

This method of instruction results in work marked by much accuracy even in the lower grades, though a certain tightness and rigidity characterizes it in all classes. The best pupils gain the power to reproduce the model with faithful care and great neatness, but the returns from different pupils in a class are apt to vary widely in their execution.

The regular instruction in drawing begins, as has been noted, in the second year. It is then taught for two periods a week for seven years. As a rule, these periods are consecutive with a brief recess between them. This arrangement permits from an hour and a half to two hours of continuous work and is of marked advantage in the upper classes, where color is used and much must be done to care for materials at the opening and closing of the lesson.

The course of study differs in its details in the different cities, but generally is developed with emphasis upon drawings

of good size in the flat in the earlier years, and with elaborate colored and shaded drawings in the highest classes. The following gives the usual sequence:

The simpler leaves, fruits and geometric forms are first offered in the lowest class, followed by similar, but more difficult forms in the second year, and these by feathers, simple tools, butterflies, etc. in the third; insects, seed pods and more complicated leaf forms in the fourth and fifth and flowers and sprays in the sixth. In the seventh and eighth years, foreshortening is taught through study of objects in the round (vases, bowls, etc.), and perspective, through the representation of blocks, boxes and books. The models are nearly always presented singly (i. e., few groups are drawn), and practically always in color. The shading in the colored drawings is generally in pencil, with wash added to the completed sketch. In the higher years these shaded color drawings are made from the simpler animal and bird forms seen on a level with the eye and with little or no foreshortening.

Drawing is taught in all secondary schools after the first year. In the "Gymnasium" (classical school) it is required in the second, third, fourth and fifth years, and is elective in the four higher years. In the "Realgymnasien" and "Ober-Real" schools, it is required from the second, through the ninth year, inclusive. In the latter schools in Saxony, it is elective in the three higher years.

The nature of the drawing is identical in all schools. It is nearly all from models, with here and there a school or an instructor laying special emphasis upon some one phase of this work—perspective, construction, light and shade, water-color. There is no attempt to differentiate work to meet the needs of different classes of students, so both classical and scientific gymnasia show work undistinguished by any element which characterizes the particular courses of study of these varying institutions.

Drawing, to the art teachers of the secondary schools, means but one thing and that is, a study in the reproduction of the model with a constantly increasing refinement. Most

of these teachers have been technically well trained and are in advance of graduates of our own brief normal art courses. Under the more active of these instructors, the technical facility developed by the students is of a high order. It is to be noted, however, that this skill is the result of an intensive scheme of instruction, teaching but one thing and that for a length of time, equivalent to the years between our own primary school and the first, or second, year of a college course.

From the foregoing, it will be seen that the purpose of the secondary-school drawing is not to be differentiated from that stated in regard to the elementary schools. The emphasis is placed upon the development of individual ability to make careful pictorial drawings, in different media, of the models offered for copy. The teaching is done on an individual basis. There is little class instruction, but much personal showing on the part of the teacher. The work is practically all from models, and each pupil works at his exercise until it is completed and then begins upon another.

Wide differences in power are thus developed, and each worker is advanced as rapidly as his skill will permit.

Well-equipped drawing rooms are found in all secondary schools. These are, as a rule, of large size, and their furnishings, especially in new schools, are of elaborate description. Individual drawing desks are the rule, always furnished with model stands. In some cases, these stands are separate from the desks and are arranged as small shelves, adjustable in height, on movable pedestals. In older schools, this shelf is found attached by a bracket to the front of the desk. The use of the individual model is universal, and in most schools ample storage space is provided for large collections of models.

The time given to drawing in the secondary schools varies somewhat in different German states. As a rule, it is required for two hours a week, but in some cases this time is increased to three hours in the higher classes. The hours are given consecutively, with a brief recess between them. The plan of work requires the drawing of flat objects—leaves, feathers,

butterflies and other insects—in the second high-school year (first year of drawing), followed in the two succeeding years by a study of simple foreshortening and perspective, from boxes, bowls, toy furniture, wagons, etc. More difficult perspective is then offered in drawing of tools and familiar objects, and this is followed by the drawing of birds and animals. In the two higher classes, the students work from large models in groups and from difficult animal forms. They are also called upon to make free-hand perspective studies of structural details—halls, vaultings, stairways, etc.—and occasionally go upon sketching trips with their instructor to the museum, or out-of-doors to work from nature. The study of casts of the antique is not common, but advanced classes will be found doing some portrait work, generally in crayon or charcoal. As was noted in the case of the elementary schools, the pupils furnish the larger part of their drawing equipment.

In the upper classes of the secondary schools, a great variety of techniques are usually to be seen. Light and shade are taught from the earlier steps of the course, being developed through pencil, charcoal, crayon, water-color, tempera and pen-and-ink. The use of color is very common in all classes. Pencil drawings in light and shade are often to be found executed in an excellent technique. Painting in oil-color is taught in a few schools.

As has been previously noted, the pupil who graduates from the Folk school must, after he enters upon his subsequent apprenticeship, attend a continuation school for certain hours per week, until his apprenticeship is completed. The time spent by the apprentice in the school varies in the case of different trades. In general, those of limited scope—as barbers, waiters, etc.—require fewer hours (four to six) per week, while the mechanical trades and others demanding a high degree of skill, require more (seven to nine) hours per week. Rarely does the pupil attend the total required number of hours on a single day. Generally his program requires attendance one forenoon and one afternoon, the sessions being arranged, so far as possible, to meet the convenience of his

employer. The latter is responsible for his fees and subject to a fine should he fail to attend with regularity.

It is to be noted that the continuation school system was originally established to carry forward, along usual lines, the work of the elementary school. The classes were originally held in the evening and on Sunday morning. The teachers came from the elementary schools and knew nothing of the trades in which the young apprentices were engaged. This older system was found unsatisfactory and is now in process of profound change. Certain cities retain it in part, while others (as Munich) have radically altered it in favor of a plan which offers the major part of the continuation course, in shops similar to those in which the young apprentice is engaged. All of these more modern schools are highly specialized, those in Munich seeing provision made for the teaching of over forty different trades, besides classes for druggists, gardeners, dentists, musicians and commercial employees.

Due to the causes above noted, it is now possible to see in the different German cities schools of the continuation type representative of the stages which have been passed from the earlier form of academic evening school to the most advanced example of a specialized day trade school. For the same reason one may see the drawing in the older schools of a very limited and academic nature, while in the most modern institutions it will be found highly specialized and taught by teachers entirely familiar with the needs which the apprentice will find for the subject in his special trade.

The degrees of differentiation which drawing thus takes in the modern continuation schools (and similarly in the industrial schools for journeymen) is characteristic of the system. Special courses will be found for locksmiths, for carpenters, for carvers, and even for bakers, candy makers and gardeners. Indeed, in the more advanced cities, one may purchase for a few cents books with dozens of exercises for each of the special trades mentioned. The drawings for each trade appear in a separate pamphlet, and for the most part are thoroughly practical in character. In the schools themselves, the "re-

quired drawing" forms only an element of the course. In some trades—barbers, waiters, etc.—it plays practically no part, while in others—jewelers, decorators, etc.—it is strongly emphasized. In all modern continuation schools, the purpose is to show its value to the workman as a practical means of sharpening his power of visualization and representation. It is studied as a practical tool, not as an aesthetic subject.

One of the most important factors in the advance which Germany has made in the industrial arts within the last twenty years is to be found in her industrial art schools. When it is remembered that all Germany is not as large as the state of Texas, some impression of the emphasis placed upon higher art education may be gained from a glance at the catalogue of professional art schools issued by Carl Malcomes. This list, though not complete, gives an outline of the organization and courses of eighty-four schools. Of those listed, nine are under private auspices. Eighteen are art academies or schools of painting, while twenty-four are "fach" or professional schools, for the training of workers in special industries. Each of the latter deals with the education of the artist-artisan in one subject, as ceramics, wood-carving, lace making and the like. Their courses lay special emphasis on the art training of the worker, and offer, besides the shop instruction, classes in drawing from nature, in modeling, in color and in the special design related to the industry represented by the school. As institutions, these "fach" schools vary in size from the Ceramic School at Höhr, with half a dozen teachers and some twenty students, to the huge Leipsic Academy for the graphic arts and book making, with its dozens of studios and workrooms, and many scores of pupils.

The art institutions still unmentioned number thirty-five. These are the "Kunstgewerbe" or Industrial Art Schools which are to be found in all of the more important towns. Some are supported by the state in which they are located, some by city and state together, while one or two (like the older Continuation Schools) are still on guild foundations. The following is a partial list of the cities in which are these im-

portant agents in Germany's campaign to reach world markets by means of the artistic excellence of her products: Altona, Barmen, Berlin, Charlottenburg, Bremen, Breslau, Cassel, Cologne, Crefeld, Dessau, Dresden, Düsseldorf, Elberfeld, Erfurt, Essen, Frankfurt, Halle, Hanau, Hamburg, Hannover, Karlsruhe, Leipsic, Magdeburg, Mainz, Munich, Nuremberg, Pforzheim, Strassburg, Stuttgart and Weimar.

The history of the industrial art school may be carried back to the beginning of the nineteenth century, but it was not until the Industrial Exposition held in London, in 1851, that England, Germany and Austria were aroused to the necessity of providing better industrial art training for their artisans. The productions of French art industries appeared in London at this time to so much advantage, that it was plainly seen that success in future markets demanded as a prerequisite, serious training of the workers in the artistic trades. All three countries undertook the reorganization and strengthening of schools already in existence and the development of new foundations. As an aid to the study of art forms and the raising of a national art, Germany also gave special attention to the establishment of industrial art museums. Many of these still remain in close association with the art schools.

The purpose of the industrial art school is primarily to train a number of art workers along both general and special lines, for those trades that call in any way for a knowledge of color and design. These schools aim to give to their students, first, an all-round education in the essentials of drawing, color and pattern making; and second, an ability to apply this knowledge in some specific way to some one industry as, sculpture, metal working, ceramics, printing, enameling, bookbinding or the arts of embroidery and lace making. The use of the shop is emphasized that the students may not become mere draftsmen, but that they may come to see how far material and process must always be considered in the development of pattern.

Besides the training of the artist-artisan, the industrial art school generally serves two additional ends. It acts as an art

continuation school by offering evening and Sunday classes for apprentices and journeymen, and frequently includes a normal course for the training of art teachers for the secondary schools. The evening classes seek to differentiate their work to meet the needs of workers in a variety of different trades.

Considerable differences in standards and in organization are to be found in the industrial art schools of different cities, but the main divisions referred to are nearly always to be observed. The general art training is given through "fore" or preparatory courses which are from two to three years in length, while special professional or "fach" courses succeed these for another two or three years. It is in the latter courses that the student applies his knowledge in the shop. Practical work is the chief characteristic of the professional course.

The industrial art school is, as a rule, housed in a building of good size, with well-lighted studios and ample storage facilities. So much emphasis is placed upon proper equipment, that a number of cities have lately rebuilt, or are planning to rebuild, their industrial art-school buildings, that they may take advantage of the latest information in planning, lighting and equipment. Among the large and costly schools recently erected may be mentioned that at Pforzheim, at Hamburg, at Dortmund and Magdeburg. Stuttgart, Cologne and Hanau are now planning new structures.

Each school is headed by a director, and strong efforts are made to select for this position a man of noteworthy excellence in some practical field of art rather than one of mere organizing ability. Bruno Paul, whose work both as a draftsman and as a designer of interiors, is known throughout Germany, has recently been called to head the industrial art school of Berlin; Behrens, an architect of high standing, has but a year since been drawn from the directorship of the Düsseldorf school (to serve as head designer for the General Electric Co. of Germany) to be succeeded by Kries, another architect of force and ability. Bosselt, a well-known sculptor, has not long since been appointed director at Magdeburg; Leven, a practical jeweler, at Hanau (a jewelry center); and

Jochem, an architect, at Pforzheim. All of these appointments indicate the determination of the state and school authorities to secure young, vigorous and talented heads to carry on work which is regarded as of so much importance.

The preparatory courses see professors and instructors in life and still-life drawing, modeling (always much emphasized), in painting from nature, the study of ornament, in anatomy, art history, geometrical drawing and in design. The "fach" or professional courses have other professors who teach the special arts offered by the school. These, as has been indicated, cover a very wide variety of subjects, some appearing in one school, some in another. Among them may be noted architecture (on the aesthetic side—the technical being taught in architectural schools), sculpture, decorative painting, gold and silver smithing, ivory carving, wood-carving, ceramics, batik, embroidery, book-tooling, book-binding, lithography, printing, etching, engraving, glass working, etc. Where there is a handworker's division, with evening and Sunday classes, one also finds instructors in the usual continuation-school subjects of German, mathematics, study of materials, mechanical drawing, descriptive geometry, etc. In these schools the "fach" subjects also include the lesser art trades, with courses for apprentices and journeymen in furniture designing, locksmithing, interior decoration, tinsmithing, turning, graining, etc.

The salaries paid to the professors who serve as instructors in the professional departments are not large, but allowances for house rent increase these and opportunities for outside practice are offered, and indeed encouraged that the work of the school may be directed by men in close touch with the activities of the art world. Women teachers appear only in the courses for women's work; i. e., embroidery, weaving, etc. In many cases the professor is given a private studio adjoining his classroom where he may have an atelier with heat, light and service, in which to pursue his profession. The amount of time required in actual teaching is limited, while the honor attaching to the position is considerable. These conditions serve to make the office one of distinction, and

make it possible to secure teachers of standing in their respective branches. The active competition between the schools to secure men of note for their faculties also offers opportunities for advancement from the smaller schools to the larger, and leads to a continual shifting of instructors of ability from one school to another.

As the buildings occupied by the thirty or more schools under discussion date from various periods of development of the industrial art movement, the equipments will be found to vary much in extent and in excellence. A brief description of the Pforzheim school, one of the latest to be erected, will indicate the standards now sought in architecture and furnishings. This school, situated in a town with several score of manufactories all devoted to jewelry, is a five-story building with a façade nearly two hundred feet in length and deep wings enclosing an open court. The latter is arranged as a garden which is planted with flowers and other nature material used in the classrooms. In the court are a number of cages for birds and animals used as live models, and a pool for ducks and other water fowl. Small greenhouses are located on the several floors for keeping plants during the winter months, while a good-sized aquarium furnishes living fish, newts, frogs and water plants for study. Besides the usual offices, there is an auditorium, two large exhibition rooms where the work of the school is on view in glass cases, a library a dozen drawing rooms, as many more workshops, several private studios for the professors, and a large hall filled with plaster casts of all descriptions. Other rooms afford storage facilities for the "lehr-mittel," of materials for teaching, one of the more striking collections being an entire basement chamber filled with racks on which were stored dried grasses, seed-pods and other natural forms useful to the jewelry designer. The building is lighted with electricity, the indirect system being used in most of the classrooms which are used at night.

The classroom equipment consists of individual drawing tables in the design rooms, and easels and revolving modeling

stands in the rooms for life drawing and for modeling. Plastiline is employed for all smaller models as it may be used repeatedly without drying. The shops are furnished with special tables designed for jewelers, watchmakers and engravers, with lathes, enameling furnaces, polishing wheels, etc. Throughout, there is an air of light and spaciousness. Each student has abundance of room in which to work and the quiet essential to the delicate operations of his trade. Not the least striking element of this ample equipment is the permanent collection of jewelry shown in glass cases upon the walls of the several classrooms. This collection numbers many hundred forms and is illustrative of the work in German, French, Austrian and English shops. Its value mounts into large figures and it is constantly being added to through a special fund set aside for this purpose. It is placed before the students for their continued study and represents examples of many of the most famous jewelry designers. The faculty numbers sixteen, besides the director and office staff. The total number of students, day and evening, in 1911-12 was 304.

The generous equipment briefly described above is not peculiar to the Pforzheim school. Not all schools to be sure, can show as large studios or as handsome exhibition halls, but in practically all one finds studios of good size, workshops with all necessary tools, a library and an ample collection of illustrative material lining the halls and filling case after case in the storerooms. This material includes casts, still life, weapons, mounted insects, birds and animals—from a butterfly and a humming bird to a mountain goat—and in some cases (as Nuremberg) an extensive collection of costumes. In several instances the school adjoins the industrial art museum, which offers additional material for study, while practically every school possesses a large assembly hall in which lectures on art topics are given for the benefit of the students and the general public.

The conditions of admission to the day classes of the industrial art schools require, as a rule, that the candidates of either sex be fifteen years of age and that they pass an entrance

examination. This examination consists of a practical test in drawing which varies much in difficulty in different cities. In the smaller towns, it requires that the applicants make some simple outline drawing from the flat, while in the larger cities, through pressure for admission, a competitive test is necessary. This is strict. An examination of this kind observed in Munich showed one hundred and fifty applicants. Each was required to make two drawings, one from an ornamental cast in low relief and another from a large decorated vase in plaster. The latter required careful rendition of perspective details. Several hours were allowed for the completion of each drawing, the examination as a whole lasting two full days. It was stated that seventy-five applicants could be admitted of the number applying, so the school was assured an entering class already proficient in the elements of free-hand representation.

The pupils applying were required to be graduates of the elementary school, and many of them had had some years of secondary school training. They must also have definitely decided upon the choice of some art trade as an occupation. As a further guarantee of their proficiency, it is the practice in the larger schools to have entering students serve a probationary term. At the end of this time, those who do not show ability and industry are dropped from the rolls.

The classes of the industrial art schools are never large. From twenty to twenty-five students will at times be found in the sections of the first year, but higher up in the school the groups include but half this number, while it is no unusual thing in the "fach" courses to find but half a dozen students at work. Numbers are in no way considered an important element in these schools; even the larger institutions rarely include more than three hundred pupils in their day sections, with perhaps as many more in the evening and Sunday classes.

Of interest in this connection was the reply of one of the directors when questioned in regard to the numbers essential to the maintenance of an advanced course in architecture. Said he, "We do not look for a number of students in this

course. Those with the ability to undertake this work are few, and even if but one talented student were to qualify for it, we should maintain the course." Of equal significance was the statement of another director, whose class of five in mural painting required the use not of one, but of several living models to carry out the decoration which had been set as a problem for each. Said he, quoting the aphorism that no omelette is made without breaking eggs, "If these young men are to be taught professional methods of work, they must have a sufficiency of models to work from"—an expensive plan to maintain, even though model hire in Germany is considerably less than with us.

The fees vary much in different schools. For local students in the smaller towns they range between \$4 and \$8 a year. In the larger cities they may rise to double this. German students from other states are, as a rule, required to pay more, while foreigners pay from three to five times the local rates. The richer schools offer many rewards for good work—generally small money prizes of from \$5 to \$20, while poor students of talent are awarded scholarships which remit their fees in part or in whole, or in cases of merit, take the form of "stipendia" sufficient to pay their expenses while in attendance at the school.

Students in attendance in the regular classes pursue a course of study in the preparatory years which includes an extended drill in all the elements of drawing and design. Special students, however, are admitted in most schools to single classes on the payment of a special fee, while continuation pupils in the evening classes are given latitude of choice, and have the work so far as possible adapted to their needs.

The regular classes study drawing from the cast and from nature. Much emphasis is put upon this latter subject. More and more the use of the live model is required both in drawing and in design. One class was seen in the Pforzheim school in which every pupil was working from a living model (fish, salamander, frog, etc.) or from a growing plant. These students were developing motives for jewelry design.

Following the careful instruction in nature drawing there are lessons in the decorative representation of natural forms. These are done in a variety of media, it being no uncommon sight to see half a dozen students each developing his drawing in a different technique—pencil, pen and ink, wash drawing, black-and-white, and more elaborate studies in color. The use of tempera (opaque water-color) is common. Geometrical drawing is taught, that the pupils may secure precision in handling instruments, and thorough instruction is given in modeling.

All of the foregoing exercises are made to have an important bearing on the teaching of design. Two elements characterize this instruction: the first being the weight placed upon the derivation of motives from natural forms; and the second the emphasis on the development of original patterns through combinations of the motives thus secured. The formal teaching of color in scales and charts is not seen, and the student, while he may study plates of design in the library, does not have access to these aids in the classroom. The theory of design is taught through the practical development of many patterns in color, each student being required to apply the motives secured from a single natural form in a variety of different patterns. This approach leads to very interesting work in the classrooms. The plates of exercises evolved by the different students not only show the use of different media, but frequently exhibit a high degree of originality in the extended range of patterns.

It is of interest to note in this connection that the recourse to nature for suggestions as to color and motives is maintained throughout the higher or "fach" courses. Students in these advanced years, who are preparing designs to be worked out in any one of a dozen different materials, are required to seek inspiration in the shell, the flower, the dried seed-pod, the butterfly or beetle, the bird, frog or salamander, the fish or mottled snake. This constant turning back to nature for suggestion leads to a freshness and vivacity in results which stand in strong contrast to those secured under older and more formal methods of instruction.

Any comparison of the work done in some of the better schools twelve to fifteen years ago, with that of today, shows conclusively the advantages which flow from the present methods of instruction. Formerly, the study of classic and mediaeval art made up a large part of the teaching. While this study of styles has not been entirely discontinued, it no longer occupies a prominent place in the latter courses. Students still receive lectures on historic ornament and are sent to the museums to study and make drawings from the work of the older craftsmen, but the output of the "fach" classes bears strong testimony to the fact that the designs now made are not weak and formal adaptations of classic motives, but are born of nature studied at first hand from living forms.

The industrial art museums are used in a variety of ways, part of the work in the preparatory course being done in the museum galleries. Generally, the students are required to make notes, in the form of outline drawings of pieces of furniture and other examples of craft work. Some instructors demand in addition elaborate studies in color of textiles, bronzes, enamels, etc. In contradistinction to the latter practice, the work of Director Bosselt, of the Magdeburg school, may be cited. It is given under the head of "form" teaching, and requires the student to visit the museum and make a careful study of the historic styles of certain epochs. These, he is not allowed to copy, but is instructed to memorize. He is urged to catch the essence of the ornament of each period, and so far as possible to make this a part of himself. This information he is then required to apply in the construction and decoration of objects of present-day use, and in this application is encouraged to preserve the spirit of the older style while ignoring the letter. Many interesting examples of furniture and interior decoration are to be seen in the Magdeburg school as the result of this teaching.

Work in three dimensions in plastiline or clay is looked upon as an essential part of the training of all preparatory students, and where opportunity offers, this teaching is

carried up into the "fach" courses. The steps lead through copies in the flat of simple historic forms, to studies of details of the antique, followed by work from the living model. Modeling is also employed in the study of design, and the students, especially in the higher classes, are led to work out many problems in clay before attempting them in wood, metal, ivory or other material. In this advanced work, nature is constantly turned to for fresh motives, it being a common sight to see an advanced pupil in an architectural, carving or metal-working class developing details of relief from a plant stuck in a lump of clay upon his easel.

The teaching of lettering as a separate subject is now to be found in many of the art schools. This is a comparatively recent development and is coincident in its rise with the striking advance made in all phases of German typography. Various special tools are employed for the purpose. Elementary exercises are first executed with a rounded stick of wood of the size of a thin lead-pencil and sharpened as a pencil. Simple alphabets are practiced upon cross-ruled paper and then upon paper with single ruled lines. When the student has acquired freedom in this form of lettering, he is given exercises with a quill pen or with a broad pen of reed. The Roman alphabet is thus taught together with examples of what is known as round writing. For larger work a "cork pen" is used. This consists of a wooden handle tipped with a rounded end of cork which enables the writer to draw large letters with great freedom and precision. The exercises developed with these tools include different forms of sign writing, headings for cards, envelopes, letter-heads and the like.

The student of the industrial art school is not given systematic instruction in out-of-door sketching, but some directors require considerable work in the drawing of architectural details from buildings in the town and vicinity. This work is frequently carried by the pupils during vacation, when singly or in small groups they make tours to neighboring towns, or at times go with an instructor to a distant city. In the industrial art school at Budapest, a very extensive collection of

work was observed which represented the studies of peasant art made by pupils during the summer holiday. It may be noted that this effort to familiarize the student with what is termed "the art of the people," characterizes the work of many of the leading schools. With the development of the cheaper forms of commercial reproduction in textiles, furniture and household utensils, this art of the people has suffered severely. Less and less does the peasant seek to use the forms of decoration that have come down through many generations. Machine-made articles are, in Germany and Austria, as elsewhere, fast supplanting the older hand-wrought forms. The latter see their quaint and charming effects of line and color replaced by the far less interesting and characteristic products of the factory. It is to retain the spirit of the older art and thus to keep it alive, that wise teachers lead their students to study it at first hand.

In the observations on secondary schools, it was noted that pupils passing the examination which admits them into the seventh year of the gymnasium acquire the privilege of serving but one year in the army. This valued permission is also accorded to pupils of the "fach" and "drawing teacher" courses in the industrial art schools, after the passage of an examination given at the conclusion of each course. It acts, as in the secondary schools, to stimulate the students to diligent effort while at the same time it makes it possible for the art school to secure as attendants those who might, without this right, be deterred from undertaking an industrial art career.

As has already been noted, the peculiarity of the "fach" course is its shop practice. As many as seven or eight of these courses are at times offered in an industrial art school, but the particular subjects taught vary widely in the different centers. Those most commonly found are architecture, sculpture, gold and silver smithing, decorative painting and general design. Others noted in different schools include ceramics, metal work, glass painting, printing, lithography, jewelry, wood-carving, bookbinding, photography, embroidery, in-

terior decoration, etc. The tendency of the industrial art school is toward the "fach" school, which is, as already noted, a professional school laying its emphasis largely upon one subject. Special schools of this description are to be found in all parts of Germany where local industries have a strong foothold, as in Höhr (pottery), Lichtenfels (basket weaving), Schoensee (lace making), Münchberg (weaving), Oberammergau (carving) and Sölingen (steel working).

While the tendency of the general industrial art school is thus to specialize, it is to be noted that there are many advocates of the present system who urge strongly the advantages of a general art training and deprecate efforts to markedly specialize all schools. These teachers concede the advantage of the special school in the town with a local industry, but insist that the larger cities shall develop their "fach" courses along present lines. They look to see the industrial art school prepare the students in preparatory courses for any art trade, while offering in the "fach" courses opportunities for study in the chief art industries represented in the town.

To the American visitor the two most striking aspects of the "fach" class appear in the limited number of pupils and in the high technical standards of the work. In these classes it is unusual to find more than a half-dozen students, each one busy over a constructive exercise which may demand for its completion weeks and even months. The term "months" is not an overstatement, the writer having seen more than one project in a metal-working class which, with its forging, welding, shaping, raising, chasing and damascening, has taken its maker a full school term to execute. The question as to the disposition of the objects made in the "fach" courses is answered as in the case of forms made by journeymen in the evening industrial classes. The objects made are the property of the school, but the student, as a rule, may acquire any particular piece of work by paying for the material. The schools retain choice examples of work for exhibition purposes, but nothing is sold to the trade.

It is scarcely necessary to state that the instruction in all

the professional courses is individual and that there is no "course of study." The different technical procedures are taken up in a series of problems dependent in many cases on the personal predilections of the students. This leads to much diversity in work, and any group of students will be found occupied in a wide variety of operations. The insistence upon the continued study of nature has been noted. This leads to phases of work of peculiar interest to the American visitor. In a ceramic class, a student will be observed modeling from a live rabbit which he induces to "hold the pose," by feeding it with shreds of carrot. A goldsmith intent upon an enameling project will be seen studying in color a spotted lizard confined in a small aquarium, a jeweler will be seeking similar inspiration from the iridescent wings of four or five butterflies, while a carver is feeding with cracked corn a beautifully plumed cockerel, as he makes from the bird his preliminary sketch in clay.

To witness this constant recourse to nature on the part of these talented young craftsmen, is to learn the secret of that striking advance in German design which is so plainly evident in every international exhibition of art-craft work. The work of these "fach" courses has been stamped indelibly on the products of scores of German factories whose designers have been trained in the industrial art schools. It is to these big and quiet studios, with their little groups of workers, that Germany looks for those who are to gain for her a foremost place wherever artistic products are sold. It is to these schools also that the American economist and manufacturer must look, if they would learn one of the secrets of Germany's advance in the race for commercial supremacy.

Besides the regular classes for art workers in the industrial art schools, two other classes are occasionally found; one of these, observed in the art school of Budapest, offered a course in general art training which was open to amateurs who desired to secure instruction in applied design. The students mostly women, were given practice in drawing, in color and instruction in practical design of use in a variety of feminine

occupations. This course offers excellent suggestion as to work of similar description which might be organized in a day or evening art school in our own city. With careful consideration of the needs of commercial workers, it could be made to present most valuable training to women employees of millinery and dressmaking establishments, and to that much larger group of department-store workers, whose occupation brings them into continued touch with questions involving color choice and harmony.

Several of the industrial art schools also offer classes for public-school children. These are held once or twice during the week in the afternoon and give instruction, largely personal, in drawing, in design and simpler forms of handwork. Considerable emphasis is placed on work in paper pasting. This has risen largely from the example offered by some remarkable work done by Professor Franz Cizek of the Imperial Industrial Art School of Vienna. The colored paper, furnished in gummed sheets, is cut by the children into a great variety of patterns and used for making designs, landscapes, posters, etc. The success of this eminent teacher has not only led to the widespread use of the "klebpapier" in elementary schools, but has also promoted the use of similar material in the industrial art schools where it is found of value in the teaching of color harmony and in the training of students in the simplification of details and the use of large flat masses of tone. As in the case of the classes for amateurs, these optional children's courses offer a valuable suggestion for work of this description which might be developed with talented pupils of our own high-schools.

In many of the industrial art schools one finds classes for drawing teachers. The conditions of eligibility vary in different states, the minimum requirements demanding that pupils be at least sixteen years of age and graduates of the "higher girls' schools" (Bavaria), or in the case of boys, of the equivalent classes of the gymnasium. The tendency, however, is to raise these conditions, and after 1914, in the state noted, pupils must offer nine years of the gymnasium. They must

then study art for four years, two years of which must be in an industrial art school. Each principality offers its own state examination for art teachers, who, as previously noted, are employed almost exclusively in secondary schools. Teachers for the elementary grades in all the better normal schools receive excellent drill in drawing, and some instruction in methods of teaching this subject. A separate Normal Art School is situated in Düsseldorf. This requires for admission graduation from a ten-year "middle school" course for girls, or the completion of the seventh-year gymnasium course for boys. It gives two years of art training confined chiefly to drawing and painting.

The courses for art teachers universally lay their emphasis on technique. Drawing and painting in a variety of media is taught with great thoroughness. A few lectures on art history are generally offered and others on the study of historic ornament. Women students must also pursue a course in artistic handiwork, for as teachers in the "middle schools" or "higher girls' schools" they are called upon to give instruction in sewing, weaving, embroidery and the allied arts.

Practice teaching is also required. This is generally done in the elementary schools of the town, the students of the last year of the art course working in small groups under the direction of the professor of pedagogy. Each practice lesson is generally followed by a seminar which takes the form of group discussion of the points developed by the pupil teacher, and of the shortcomings noted by the critic. Lectures on pedagogy are also given in the art school, but the subject of "methods of teaching" receives, as a rule, much less attention in these schools than the American visitor might be led to expect. The ideals of the schools are distinctly studio ideals and the artist teachers look with scant favor upon "methods of teaching." Their own teaching is individual and they seek to train their pupils to pursue a similar practice in the classroom. This arises in part from the lack of relationship between the different types of schools throughout the empire, and in part, apparently, from a tendency of the German mind to

reduce suggestions touching lesson development to formal and didactic steps. The latter, the art teacher has learned to fear, regarding them as sure to destroy all individuality on the part of the pupil in the grades. Hence, the answer of teachers in normal art schools when questioned in regard to "method work"—"Yes, we teach methods, a little, but the less the better; one must learn his methods in the classroom."

Unfortunately, all pupil teachers are not so gifted that they can learn of their own instance the difficult art of carrying forward large groups of pupils through exercises which require as much in the way of mental development as of manual skill. For these reasons, the American visitor in the German normal art school, or in the related classes in the industrial art school, must look for suggestions, to the admirable training given in drawing, to the excellent drill in black-board representation and to the extensive knowledge of a variety of techniques, rather than to instruction given touching the child's attitude toward art, his aesthetic interests at different periods of his development, the steps to be taken to cause him to reason about his drawing, to think a way through technical difficulties or to criticize in intelligent fashion his own work or that of his neighbors.

INDUSTRIAL ART SCHOOLS IN AUSTRIA AND HUNGARY*

Professor Gyula Mihalik

In Austria and Hungary drawing is considered the principal preparatory study for industry and art and is therefore included in the curriculum of every school giving a general education.

The child enters the primary school at six years of age and remains six years. During the first two years one hour a week is devoted to drawing, and during the remaining four years two hours a week. The purpose of the instruction in drawing is to cultivate observation, memory and manual dexterity.

The drawing is at first done from flat objects and later from plaster casts. Elementary designing is taught in connection with brushwork, and ornamental work for girls coordinated with their needlework. In the larger cities the boys model in clay and execute manual work in paper and wood.

The intermediate school is of six years duration and overlaps the primary school in that a pupil may enter upon the completion of four years in the primary school. These two schools comprise a complete public-school education, and graduation from the intermediate school qualifies for admission into the training schools for teachers and technical schools. The purpose of drawing in the intermediate school is to teach correct observation of forms and colors, to draw correctly simple objects thus observed, and to cultivate an artistic sense by contact with good art examples. During the first three years three hours a week are devoted to drawing and two hours a week during the remaining three years. The instruction is similar to that of the primary school except that the work is of a more difficult character. Enough ornamental drawing is given to compose simple designs and sufficient instrumental drafting to make a ground plan, elevation and projection. The elements of lettering are also taught.

*This article was written in 1921 but is descriptive of conditions obtaining in Austria-Hungary before the World War.

During the first decade of this century the then existing plans for drawing instruction were altered to more nearly conform with American practice as outlined in the textbooks of leading American publishers.

There is a marked difference between the training and ability of the teacher of drawing in the primary school and the teacher in the intermediate school, due to the fact that the primary teacher gives instruction in every class subject whereas the intermediate teacher is specially trained in a few related subjects, the drawing teacher usually being a specialist.

The secondary schools are of two types—the gymnasium or classical school and the “Realschule” or modern school. The first prepares for admission to the university and the latter for admission to the higher technical schools. A pupil may be admitted upon the completion of four years of the primary school. The course is of eight years’ duration. In Hungary two hours per week are devoted to drawing during the last six years in the Realschule. The work at first consists of ornamental drawing and coloring from copies and plaster casts. In the last four years groups of models and simple objects are drawn and also natural and figural details from copies. Sufficient mechanical drafting is taught, in conjunction with geometry, to give a good basis for industrial education.

The distinction between the drawing instruction in the primary and secondary schools is that in the former the stress is laid upon the development of the imagination and the memory, whereas in the latter the emphasis is upon the training of manual skill and observation. The instruction received in the above schools furnishes the elementary artistic principles of industrial art which serve as a foundation for the art work in special and higher schools.

In both Austria and Hungary there are various types of industrial schools giving theoretical and practical instruction in industrial art. They are supported by the state and are under its supervision. In Austria this supervision is by the Ministry of Public Labor, and in Hungary partly under the

Ministry of Public Worship and Education and partly under the Ministry of Commerce.

The Ministry of Commerce is assisted by an advisory committee in the conduct of industrial schools. This committee is composed of representatives of industrial schools and men from the industries whose practical experience is of value in dealing with the problems confronting the committee.

Continuation schools are provided for young workers, at which instruction is given evenings and Sunday mornings. The term is usually of two years' duration, the first of which is devoted to instruction of a general educational character, and the second to instrumental and free-hand drawing. The instructors in these schools are primary teachers and artisans who make up any deficiency of their equipment by attending special courses in technical schools for two or three months.

In *schools for workers* drawing is taught three and four hours a week.

In *training schools for special branches of trade*, which are provided with workshops, boys and girls are given theoretical and practical instruction in trades. These schools are generally associated with the continuation schools. Pupils may enter as young as twelve years of age if they have completed their public-school education to that period. Free-hand and mechanical drawing is taught for from four to fourteen hours per week, according to the trade training being pursued. The training courses for primary teachers proposing to teach drawing are given in these schools, as well as special drawing courses for artisans.

The *training schools for women* are comprehended under the above heading. The course extends for two years, may be entered at fourteen years of age, and consists of three branches—linen work, embroidery and dressmaking. The largest of these schools are in Budapest and Vienna, and through special courses train teachers of needlework for the public schools. Two hours a week in drawing is required in all of these schools.

There are numerous *industrial courses for craftsmen and*

artisans provided by these schools and the industrial museums. These courses range in duration from two weeks to five months. In Hungary, in 1912, there were 369 such courses with an enrollment of 14,200, a large proportion being for professional drawing. These courses serve to extend a knowledge of new technical methods, improve drawing ability, refine artisanship, and train teachers and workmasters for the schools. To extend training in industrial art for all interested, from the artisan to the staff of the professional schools, there are provided libraries, exhibitions and peripatetic collections of books, and of machines and apparatus.

A special *industrial drawing school* in Budapest, supported by the municipality, provides courses in drawing for craftsmen, for prospective workmasters, and courses in drawing and modeling for primary-school teachers and for pupils of the primary and secondary schools.

The *School for Artistic Embroidery* trains the majority of teachers of embroidery. There is a preparatory year and three regular years. Girls are admitted upon completion of the work of the primary school. Those completing the course may elect two additional years for the practice of embroidery and designing.

The *Central School for Lace Making*, connected with the Industrial Art School gives ten months instruction, and trains lace-making teachers. This school directs sixty schools in different parts of the empire in which in 1913 the enrollment was 4,097, and also provides the bobbin-lace schools with models.

The *School for Basket Making* trains teachers and workers, and provides models and advisory supervision to thirty-eight schools throughout the country, with an enrollment of 2,033 pupils in 1913.

The *Graphic Institute* provides instruction in photography, reproduction and graphic printing as employed in industry and art. Six hundred pupils are enrolled.

A large part in industrial art education is played by the industrial art museums of Budapest and Vienna. They con-

tain extensive collections of excellent examples of every branch of industrial art, and also libraries. Frequent special exhibitions are provided, and the officers and other professional men give lectures for the public in general, but more especially for craftsmen.

The industrial art schools of former Austria-Hungary, namely, the three schools in Vienna, Budapest, and Prague, had an importance that is not to be underrated in the cultural, the industrial, and the economic field generally. The demands that were met by these schools differ according to the field to which their spheres of activity extended.

Vienna, the permanent place of residence of the ruler of the monarchy, was always the center of lively cultural and economic activity. The artistic taste that was a potent factor in every field of social life was known and valued all over the continent.

In this setting the Vienna Industrial Art School had an exceptionally broad field of activity, and exerted a far-reaching influence on the development of industrial art production. It had become the object of this school to secure for itself the leading rôle in the continuous transformation of artistic taste.

This influence extended not merely to Vienna itself; for, thanks to the promotion of its interests on the part of the proper authorities, the refining influence of this school is traceable in industrial instruction, in manufacturing, in industry, as well as in domestic manufacturing in former Austria. It is primarily to be credited to the endeavors of the professors and consequently to the school, that the conviction could take root in the minds of many manufacturers and tradespeople that the artistic quality of certain kinds of goods materially increases their value and enlarges their market.

The importance of the Vienna school did not, however, remain confined merely to the boundaries of its own country. It must be emphasized that artists turned out by this school have attained noteworthy successes in other countries, particularly in Germany.

The importance of the Hungarian National Industrial Art School in Budapest lies in another field. Conditions in Hungary were very different from those in Austria. Here there was no highly developed manufacturing industry, which is called upon to work hand in hand with artists; there was also no pronounced direction of artistic taste that could have asserted itself in international competition; there was, however, an economic unit circumscribed by the geographical boundaries, as well as a national art, which had developed to a highly flourishing state in consequence of the association for a thousand years of populations differing, to be sure, in language, but otherwise dependent on one another.

This national artistic treasure was utilized as the basis of industrial art education, and it was the aim of the Industrial Art School in Budapest to continue to build on this foundation and to create an industrial art which should differ from that of other countries and should show traits of national originality.

The next task was to foster appreciation of home products, and, in default of manufacturing, to provide an opportunity for many persons to enter into the field of independent production in industrial art. Various courses of the Industrial Art School, which had as their aim the development of a fine amateurship and the training of suitable assistants for smaller workshops, had the consequence that interest, inclination to purchase, and the general artistic taste reached a higher level.

The purpose and importance of the Industrial Art School of Prague were determined by the industrial activity which occupies the preponderant majority of the inhabitants of Bohemia. This school, which was founded especially for the purpose of becoming a support of native industry, keeps the aims and means of industrial practice in view in its entire plan of instruction. Technical ability is an indispensable prerequisite for admission to most of the technical classes, so that graduates upon leaving the school are capable of being placed as thoroughly competent workers in industrial enterprises.

THE ROYAL INDUSTRIAL ART SCHOOL OF VIENNA

The Royal Industrial Art School of Vienna was founded in 1868 to educate designers in the applied arts, to afford opportunity to artists and craftsmen to execute practical art work and to elevate and broaden public artistic taste. The school is supported by the government and is under the control of the Ministry of Public Labor. It is housed in the Industrial Art Museum. The director is a governmental appointee. There is a board of visitors composed of artists and representative men of industry, the chamber of commerce, and the government, of which board the director of the Industrial Art Museum is chairman. The duties of this board are those of a board of directors. The school is well equipped with all necessary appurtenances, with the addition of having at the immediate disposal of the students the large collections of the museum.

The term extends from October 1st to July 1st. The fee is sixty crowns for each half year, and five times that amount to foreigners.

The courses consist of a three-year *general course*, *professional courses* in architecture, painting, and sculpture of from two to four years duration, and *special courses* in drawing from life, drawing for young people, in French and English, designing, study of ornament and lettering. The attendants in the special courses are not classed as regular students of the school and are required to purchase weekly cards for which they pay one crown per week.

The general course receives boys and girls over thirteen years of age who have completed four years in the secondary schools or have an equivalent education and pass an entrance examination. The maximum age for entrance is twenty-four years.

The entrance requirements for the professional courses are the same as for the general courses, but the age limits are seventeen and twenty-six years, and the applicant must also

give evidence of a general artistic education and promise of special fitness. The professional courses have special workshops for metal work, enameling, ceramics and textiles, from which special students are debarred. A chemical laboratory is provided and its services are at the disposal of industry for practical advice.

In 1913 the enrollment at the end of the year was 233, distributed as follows: General course 51, Architecture course 27, Sculpture course 25, Painting course 21, Workshop for Metal Work 5, Workshop for Enameling 12, Workshop for Ceramics 5, Workshop for Textiles 16, special courses 71.

Of this number a little less than one-half were women.

The subjects of instruction in the general courses are:

First year: Form studies—Ornamental drawing and composition, lettering and heraldry; technical drawing (projective and perspective geometry), composing, mathematics, bookkeeping.

Second year: Nature study—Chemistry, history of styles.

Third year: Drawing of the Human figure—Anatomy (drawing and modeling), history of art, special study in the morning and evening in the classrooms for drawing the living model.

The student is taught ornamental and architectural styles by making sketches from drawings of ornaments and from prints of the various Greek and Roman architectural styles. They are required to memorize the principal styles. Plaster cast models are also made use of. Lettering is taught in conjunction with the above and also the laws of composition and form. In nature study use is made of flowers, plants, butterflies, etc. The use of pencil, brush, pen-and-ink, water-colors, and the different methods of drawing are taught. This work is preparatory to drawing from the nude in charcoal and chalk. Anatomy is taught by drawing and modeling the principal parts of the human body, first from plaster casts, then from the living model and finally from memory.

Instruction in the professional courses is not based upon a rigid syllabus. There are many commercial orders to be

executed, which are done under the supervision of the teacher. Suggestions on paper are given the student to be carried out, and work is also directly executed in the material without preceding design.

The teachers are closely in touch with industry, as a large part of their time is given to commercial pursuits. The conditions existing in Austria, particularly in Vienna, give opportunity to the school and its teachers for plenty of commercial work. There are also numerous societies, limited companies, and private workshops with which the school staff is associated, thus affording the closest connection between the school and industry.

The work of the school is displayed in public exhibitions at which the specimens may be purchased or orders placed. Industry is much interested in these exhibitions and is afforded opportunity for obtaining trained designers, an opportunity generally availed of.

In addition to the Industrial Art School and Museum, Vienna has a *Graphic Arts School* with work in book illustration, reproduction and special technical courses; the *Central School and Seminary for Trades for Women* with Courses in needlework, embroidery, dressmaking, and the training of school-teachers; the *Institution for Home Industry for Women* with courses in various home industries and for the training of teachers; and the *School and Experimental Institute for Basket Working*. These schools obtain much of their art direction through the Industrial Art School.

THE ROYAL HUNGARIAN INDUSTRIAL ART SCHOOL OF BUDAPEST

The Royal Hungarian Industrial Art School of Budapest, founded in 1879 and supported by the government, aims to train designers and craftsmen in the industrial arts. It shares a building with the Industrial Art Museum, and is under the control of the Ministry of Public Worship and Education. The director is appointed by the king and the other members of the staff by the minister.

Six courses are offered: Architecture, Sculpture, Decorative Painting, Graphic Arts, Metal Work and Textiles.

Prospective day students must be at least fourteen years of age and have completed four years of the secondary schools. All applicants must submit to an entrance examination which consists of drawing from a plaster cast of the human head, an ornament, a plant or colored object, and the making of a design to fill a given space. The first half-year of attendance is probationary, continuance in school being dependent upon the progress made.

The fee is forty crowns per year, and double that amount for foreigners. The daily hours are from eight to noon and from two to six o'clock, excepting on Saturdays and Sundays which are reserved for voluntary work and for rest.

The morning lessons are devoted to professional studies—except in the first year—and the afternoon to complementary, practical and theoretical studies. The most important subject is drawing from the living model, to which forty-eight hours per week is devoted during the entire course. The work of the student is supplemented by time spent in the Industrial Art Museum, the ethnological section of the National Museum, the Zoölogical Garden, and by studies of the interesting buildings of the city. On these excursions, sketches, drawings, and paintings of material studied are required. Visits are also made to industrial establishments, workshops and exhibitions.

The completion of any course requires five years. The first three of these are spent upon art and technical studies and are sufficient to permit the students completing them to enter a trade or work as designers or workmasters. Talented students may remain at the school for a fourth or fifth year to gain a more complete professional art education.

There are no statistics of the number of graduates who become designers, but it is known that a large proportion set up their own studios as professional designers and craftsmen, and some follow the fine arts as painters and sculptors.

The number of students enrolled in the day courses in 1914

was 162, distributed as follows: Architectural Course 41, Sculpture Course 27, Decorative Painting Course, 33, Graphic Arts Course 31, Metal Work Course 15, Textile Course 15.

About seventy-five per cent. of the entrance enrollment remain to the end of the third year and about twelve per cent. to the end of the fifth year.

Some members of the instructing staff are actually engaged in their trades or professions, and the students are given opportunity for active assistance to the teachers in their commercial work. There are no advisory committees of tradesmen in connection with the school.

In the *Architectural Course* the student is taught construction, the various types and decorative treatment of furniture, beginning with single pieces, and continuing to the artistic development of various kinds of rooms and entire apartments according to a given floor plan; enough water-color work to meet designing requirements, and the making of working drawings. The student is also given exercises in cabinet-making in the school workshop. His work is further supplemented by visits to establishments connected with the building and house-furnishing trades.

In the course in *Graphic Arts* manual dexterity is obtained through special pencil exercises. These are followed by drawing from nature, and frequently from specimens of Hungarian peasant art work, which gives a foundation for designing post-cards and other ornamental materials. The work is done in pencil, pen-and-ink, and water-colors. The higher classes design posters and book illustrations. An opportunity is afforded in the printing shop of observing and practicing the work of the compositor, lithographer and copper engraver, and of practically executing school designs.

The *Metal Work Course* begins with the making of tools, followed by chasing and a study of the various steps in the making and refining of different kinds of metal work. The elements of enameling, mounting of precious stones, and the making of jewelry is taught, intimately correlated with the work in design. The practical methods of quantity produc-

tion are also taught. The metals used are copper, brass, and silver.

In the *Textile Course* the student makes designs from nature, peasant art work, and embroidery. Designs for embroidery, which are limited to plain stitches, are executed directly in the material. Designs are made for weaving, lace, batik, fashionable dresses, and costumes of different styles, including those for the stage.

There is also a ceramic workshop in which designs are executed by students.

There are certain subjects of instruction such as drawing from nature and the figure, ornamental drawing and designing, lettering, architectural styles, and projective and perspective geometry, that are obligatory upon all students, and to which a large proportion of time is allotted. The practical art studies are supplemented by studies in hygiene, Hungarian literature, history of art, and sociology.

The school exerts an important artistic influence upon industry. In industrial art competitions students are frequently prize winners. Special competitions for the students are arranged for by commercial firms and designs are purchased and orders given for execution by students. Commercial orders are also executed in the printing shop, and in the workshops for metal work, textiles and ceramics.

Special evening courses are conducted in designing for joiners and cabinet-makers, the graphic arts, textile fashion designing, and practical metal work. These technical subjects are supplemented by drawing from nature, ornaments, and the living figure, and projective and perspective geometry.

THE INDUSTRIAL ART SCHOOL AT PRAGUE

The Industrial Art School at Prague was founded in 1885, for the purpose of training artistic craftsmen, and for the training of teachers for industrial schools. It is supported by the state and administered by the Ministry of Public Labor. The organization is similar to that of the Royal Industrial

Art School of Vienna, but lays special stress upon adjusting its curriculum to the distinctive local industrial requirements. The staff consists of the Director, sixteen professors, eleven teachers, three assistants and a work master.

Classes are held every day in the week, including Sundays, and also on week-day evenings, from October first to the end of July. Fees in the general and women's courses are fourteen crowns per half-year, and twenty crowns in the professional courses. Foreigners are charged double the regular fee.

The day school has a *General Section* with courses in drawing and modeling, and a *Professional Section* with courses in decorative architecture, painting, and sculpture, metal work and textile designing. There are also courses for women in artistic embroidery, drawing and painting. There are evening and Sunday courses in architectural, ornamental, and figure drawing and in modeling, and a Sunday course in geometry.

Students are admitted between the ages of fourteen and thirty, if they have completed four terms of the secondary schools. Applicants for admission are required to submit specimens of their work in drawing or modeling and to make an entrance examination drawing of the living head and of a plant. In the courses for women the age limits are fourteen and twenty-five, and admission requires the completion of three years of the secondary school and the passing of the examinations. A prerequisite to admission to the textile designing course is the completion of two years in the school of weaving.

The first half-year is probationary, at the end of which period the student's status is permanently established if his work is satisfactory. At the end of each half-year the student is required to pass an examination in each of his subjects. Judgment is passed by a committee of the staff.

The school is equipped with plastic and industrial art models and a library. The Industrial Art Museum, with its fine collection is often visited by the students. The school has its own garden where studies are conducted in the summer

time. Four weeks of out-door painting in the country during the summer is also afforded.

The students of the general course are prepared to enter the industrial art industries at the completion of their course, but the majority elect to continue their studies in the special courses which afford them an opportunity for acquiring a higher artistic training. These latter courses are closely coordinated with practical commercial practice because both teachers and students accept orders for commercial products and execute them within the school. In this way the transition from the school atmosphere to that of industry becomes easier for the student.

The work of the general courses consists of cast and ornamental drawing in the painting section and of figure and ornamental modeling in the modeling section. In the third year both sections draw and model from the living figure. The theoretic studies which supplement the above are geometry, theory and history of styles, anatomy, color instruction, history of art, technology, composing, reckoning and book-keeping. The studies in drawing and modeling are largely analytic in character. Very little composition work is done in the general course, which is in marked distinction from the practice of the Budapest and Vienna schools. In the professional courses analytical and composition studies are made, coupled with drawing from the nude. In the course in metal work there is drawing, bossing in wax and practical metal work. The textile course aims to produce textile designers and teachers for the textile schools. The work consists largely of drawing and painting, making considerable use of flowers as models, of making designs for embroidery, fancy weaving and cotton printing.

In the courses designed for women, in addition to the theoretical subjects of the general course, drawing and painting is given using casts, flowers, still life, and the human head as models. The subjects of the embroidery classes are embroidery, drawing, painting, designing, and the translation of the designs to the material is taught. In addition to the theoretical

subjects of the general course, studies of embroideries, history of the textile art, and a study of textile materials used in churches and synagogues are given.

Evening and Sunday courses afford an opportunity to artisans employed at their trade during the day to broaden their artistic knowledge as applied to their trades.

In 1913 the enrollment in the regular day courses was 214, of which nearly twenty-five per cent. were women.

SPECIAL ARTICLES

THE MUSEUM AND INDUSTRIAL ART

Henry W. Kent

The museum of today groups its objects of art in two classes, those called "fine," and those called "decorative." Thus it follows a division which came into use in France in the eighteenth century, when painting, sculpture, and architecture, as being concerned with the mind and, particularly, the imagination, were elevated in a phrase to a higher plane than those works of men's hands in which usefulness was a primary concern. This distinction was occasioned by an organized effort to encourage the training of artists and craftsmen, following the recognition of the importance of the arts, both fine and industrial, to the nation, and, so far as the latter are concerned, it marks the end of the mediaeval system of guilds, with their training of the young and their responsibility for methods and styles, and the beginning of industrial production as we understand it today, with its irresponsibility for the training of individuals and its ignorance of traditions. The terms "mechanical," "industrial," and "useful" have been used ever since to distinguish the lesser arts from the "fine," with the consequent belittlement which has attached itself to them, much of it merited, though none of it necessary. There can be no cause for quarrel with the distinction made by the French, nor with the word "fine" as applied to painting and sculpture, but there is reason for protesting against that imputation of a lack of fine qualities which we inherit with our words "mechanical" and "commercial." The great things of the industrial arts are a noble inheritance, just as the great things of the fine arts are, and often, in their way, serve only a little less important purpose—the elevation of men's minds and the firing of their imaginations, to the perfecting of the works of their hands. The museum of today, by its adoption of the word "decorative" to describe these arts instead of "mechanical," "indus-

trial," or "useful," has recognized the element in them which before had been overlooked, or, at least, unhinted at in these words, namely, the art of design, which enters into them, and which, while made to serve useful industrial purposes through mechanical means, is often as truly fine as much painting and sculpture, and represents just as surely, just as vividly as they do, the minds and the hearts of great nations ancient and modern, and of great periods, like the Middle Ages and the Renaissance.

We, in this age of wealth, ready communication, and great inquisitiveness, have accumulated in the museum samples of the arts of all times and peoples for the pleasure and the profit of the nation. The secrets of the guilds, cherished gifts from master to apprentice—the styles—are now things for all to see and to know. With every thing at our disposal by way of example of what has been done, we have the incentive to lead us to do more work and still better work in style, quality, and design. This the museum freely offers.

The duties of the museum of art to its public are clearly defined: to give opportunity for the enjoyment of the fine and the decorative arts to those who seek enjoyment, and to give opportunity for the study of these arts to those who seek knowledge. The museum recognizes this scope for its operations, and it succeeds or fails in its effectiveness according to the measure of the fulfillment of its obligations. The phrase "art for art's sake," coined by an impractical culture, has no place in a healthy republic. Art for the people's sake is the motto of the American museum today, just as it was in France in 1800, when the modern museum came into being. In a word, then, art for the enjoyment, for the study, and for the profit of the people is the cornerstone of the museum edifice, the object of its collecting, exhibition, and demonstration.

Having made this clear, let us turn to our chief concern in this paper—the part the museum bears in the study of art, and, more particularly, its relation to those students who seek to gain knowledge in connection with the making of objects of the decorative arts, the representatives of that great body

in our national economy who manufacture, create, produce—what you will—and for profit, the things of our daily needs: furniture, ceramics, textiles, metal work, and so forth. Just as an individual grows in knowledge by study, so a people grows. To improve national intelligence along any given line, let us say taxation, requires something more than legislation; to improve the quality of our national manufactures requires something more than a protective tariff, or perfected machinery; it requires practical instruction in drawing, designing, and, above all, in that most difficult thing, the knowledge of quality or style—in a word, art. The instruction in drawing and the theory of design must be given in the school of art or design by expert teachers; the knowledge of the styles of the great periods of art must be gained from the actual objects which illustrate them. No school, no single institution of instruction, however, can assemble the material necessary for such a schooling; into an assemblage of such things goes wealth, goes knowledge of how to gather, how to house, how to arrange, how to show, how to care for—a business in itself, the business of the museum. Thus it is that in a perfect state, the school teaches the theory and practice of design, and the museum furnishes the examples of what has been done in the decorative arts, which holds a promise of what may be done. In this way the museum becomes a partner in preparing the men and women responsible for the quality of art in those manufactures wherein it has a place. It is to the well-educated designer or person charged with the care of the department of art in the factory, more than to anyone else, that we must look for the cultivation which shall give to the manufacturer the quality of art belonging to his craft by inheritance; it is to the schools we must look for the training and position of the designer; and it is to the museum we must go, not alone for practical help but for standards of judgment. And, furthermore, through its possession of the acknowledged treasures of the arts, the museum becomes the stern critic of the present and the sponsor for the future.

So much for the theory of the museum's place in the active,

working, producing world of design today. As to its practice? It places at the disposition of students everything it has, subject only to reasonable care and safeguarding; it gives opportunities for studying, measuring, comparing, and copying; it makes reproductions for memoranda; it gives lectures; it explains; it exhorts.

To understand completely the situation of the museum in relation to the production of the decorative arts of today, one thing more remains to be said. The manufacturer has perfected his methods and his machines, has established his markets, has given this country a place of power in the industrial world—he is proud of this and so are we; but he has failed to recognize that one thing necessary to his complete success, namely, the thing we have been speaking of—the quality of fine design, which is art. He has just so far fallen short of acquiring distinction in the eyes of the world, nor will he attain the place to be coveted until he has absorbed this quality. The designer has failed to make himself a necessity, through no fault of his own, but through the premises in the case; he has neither the power nor the position which rightfully belongs to him. And the school has failed to secure these things for its students; it has failed to inspire. In just so far it has fallen short of its obligation to the designer, to itself, and to the principles it represents.

The museum has ever included in its collection of the fine arts the works of living men, both sculptors and painters; but until quite recently, it accepted, with an astonishing lack of independence of judgment and openness of mind, the traditional implication of the dictionary definition of “mechanical” and “commercial,” and wrote over the door to its galleries of the decorative arts “from the beginning, to the end of the eighteenth century.” It shut out all consideration of the works of men’s hands, minds, hearts, and machines from that time. In so far, it failed to recognize one of its most important duties to its contemporaries, and its obligation under its own charter to foster and encourage the arts; it failed to distinguish between good and bad, leaving to future generations to

determine whether or not art in commerce died with the eighteenth century; and it failed to that extent in the enlargement of its power.

It will not be long before the prejudice of the world of art that a work made by the hand is good, while one made by a machine is bad, will be forgotten in the understanding of the fact that the machine, like the hand, is the tool of the head. That the museum should now have awakened to the necessity of a decision as to the part it should play in modern industrial life is the result of the stirring of trade after better art in design, and the accompanying appeal to the museum for practical help. A start has been made by the museum to interest itself in products too long ignored; to understand conditions too long overlooked; and to collect and display the work of the decorative arts of today. Soon it will be in a position to offer a complete survey of the arts it has proposed to foster, and through understanding, sympathy, and practical help, to meet such demands as shall be made upon it.

Under these circumstances—under all circumstances, the museum may be counted upon to do its part, to provide, to show, to explain. In a word, and summing up the whole matter, the museum contains art, which is the mother of art; and it gives of its advantages for the knowledge of this great source of power freely, to the end that the arts of design of this nation may become great.

THE ARTS AND CRAFTS MOVEMENT IN THE UNITED STATES

C. Howard Walker

The directly organized encouragement of what is now recognized by name as the Arts and Crafts movement in the United States occurred twenty-five years ago in Boston, and was the result of an exhibition of handicraft work which was suggested by similar exhibitions in London since 1888 and especially of one in Paris in 1896. The exhibition was held in the Boston Museum of Fine Arts jointly with that of drawings by members of the Boston Architectural Club. Its definite purpose was to develop artistic qualities in the work of craftsmen, of whom there were already an appreciable number, and to recognize the efforts of those who were not employed by organized industries of which the products were the result of subdivided labor.

The favorable reception by the public of the exhibition of 1897 caused the formation of the Boston Society of Arts and Crafts in that year. Similar societies have since then been founded throughout the United States and after ten years the National League of Handicraft Societies was organized, consisting of thirty-three constituent Societies in twenty different states.

These societies were, however, at very considerable distances from each other, their standards of requirements necessarily differed, and cooperation was difficult. It is now obtained through the medium of the American Federation of Art, each separate society independently conducting its own affairs.

The same incentive, however is behind the efforts of each and all; that is, to raise the standard of American handicraft.

The justification of the formation of these societies has been proved by their continued existence and by their increase, despite the fact that they have had the powerful and

direct competition of financed organized mechanical industries. This competition is however, more hypothetical than actual, as in every case the work of the hand should have superior quality to that of the machine, and should have therefore a character transcending machine work. It would be an excellent motto upon the seal of an Arts and Crafts Society which read, "No work of handicraft is justified that can be done better or as well by a machine." The only assets which a machine possesses, and they are not to be minimized or despised, are its powers of accuracy and of an indefinite duplication.

At the foundation of the Boston Society, the following statement of purpose was affirmed. "To bring together artists and craftsmen to the end of mutual help and more sympathetic work; to make the artist more of a craftsman, the craftsman more of an artist; to provide a place where both may meet, where conferences may be held and papers read, where workrooms may be provided with tools and materials for the use of craftsmen who are otherwise unable to work out their ideals; where there may be established a museum of valuable examples of applied arts; and where a library of kindred literature may be collected; to work for the foundation of trade schools; to uphold art handicraft of all kinds; to endeavor to improve the qualities of that now done, and to restore such branches as are now in abeyance; to hold exhibitions of art handicraft both old and new, and to establish scholarships and prizes for excellence of work." An ambitious and enthusiastic program, but entirely paternal, and without recognition of the relation of demand and supply, and the necessity of a salesroom or clearing house for the work accomplished. There was an underlying implication that handwork was intrinsically better than machine work, which is not the fact, for the machine can be used to lend power, to aid and to supplement the hand, and has made possible the daily use by the many of what was luxury to the few, the printing press being an example.

The original program also necessitated the propinquity of

the worker and the museum and library and workshops, and ignored the many workers who were isolated. The personnel of the craftsmen was not considered, for it was still an unknown quantity. Broadly considered, there are two classes of workers in the world, those who are content to work under a superior control and who are relieved in their minds if responsibility is removed from their shoulders, and those who crave independence of action and chafe under autocratic control. Naturally the latter class, if successful, is the cynosure of all eyes, and the envy of the former, who strive to enter it, and fall back to the subordinate places only after disastrous failure, and only occasionally for them is the goal reached. But by force of control they learn to do their work technically well. The latter class, the individualists, have to create their own control, from observation, and from their own initiative; they find accuracy irksome, dreams outleap performance and unless some standard is demanded of them, they fail in everything but intention, are incapable of becoming good subordinates and are contumacious derelicts. These two classes are especially evident in all the artistic pursuits, their characteristics being most manifest in the minor arts, and it was the minor arts which were the special province of the Arts and Crafts Societies. The problem to be solved was a difficult one. Persons who had learned technical skill but who had had no association with artistic surroundings and were untrained in design, presented work which was without imagination or beauty, and others who had had the advantages of cultivated environment, offered an expression of their ideas so badly executed that it was unacceptable. Of these two classes the first was much more amenable to correction than the second, which assumed for itself knowledge and good taste which it could not express accurately or well. Neither class, from desire, wished to be merely a factor in a machine system.

To help both demanded tact. The early results obtained were only too often crude and puerile, and compared unfavorably with the finished product of a machine which at least copied well-chosen examples with accuracy. Restraint, indus-

try, study and skill must accompany genius and inspiration; the achievement of the handicraftsman must excel that of the machine in some way or the entire effort would be indefensible. For a long time it was in idea only that any superiority was apparent, and the work of the handicraftsman could only present the claim of being unique, so unique that any desire for its repetition was inconceivable. From that very fact, handicraft work established a foothold. It was different from other work.

But the virtue of handicraft is not confined to its products, it is of great benefit to its producers. It has given opportunity for creative achievement to many who were incapable of becoming great masters which has enriched their lives. It has led into the realms of the arts, than which there are no more stimulating and beneficial domains, those whose lives otherwise would have lacked fine enjoyment. It has made those who have desired great opportunities the gleaners of small opportunities until they have found themselves among the givers rather than merely the receivers, and it has often been the panacea to the mind that was sick, from grief or pain, or struggle. The hand asks attention from the brain, and refreshes it and soothes it into sanity while the brain is intent upon the work.

It is true that some of the work may seem to have absorbed insanity, but nevertheless there is no more satisfactory a nepenthe for jangled nerves than manual occupation.

The result desired has been therefore to make the accomplishment of handicraft workers individual, skilful, imaginative and beautiful, transcending the output of the machine, and then, if the machine can successfully repeat it, so much the better for the machine.

The standard desired by the Arts and Crafts Societies should therefore be high. But on the other hand the feeble and adolescent must be encouraged, for from their ranks the skilful are reenforced. As a result, many varieties of work of various degrees of merit occur.

Very early in the history of the Boston society it was rec-

ognized that there must be a salesroom for the exhibition and sale of the work of members, otherwise there was no point of contact between the worker and the prospective buyer. The objection that this gave a commercial taint to the enterprise did not maintain, for there is nothing dishonorable in commerce per se, and the salesroom acts as a permanent exhibition.

The early statement of purposes of the Boston society has become instead a statement of principles, which is published on one page of the Annual Report, as follows:

“I *Motives*—The motive of the craftsman is the love of good and beautiful work as applied to useful service, and the need of making an adequate livelihood. In no case can it be primarily the love of gain.

II *Conditions*—The conditions of true handicraft are natural aptitude, thorough technical training and a just appreciation of standards.

III *Artistic Cooperation*—When the designer and the workman are not united in the same person, they should work together, so that their individual faculties become united in the work.

IV Modern Craftsmanship requires that the idea of patronage be superseded by that of cooperation and reciprocal service.

V The results desired are the training of craftsmen, the developing of individual character in connection with artistic work and the raising of the standard of beauty in objects of use.”

Again a broad statement, but capable of realization, as the facts have proven. Farther on in the report is a further statement, i. e.:

“The Society endeavors to stimulate in workmen an appreciation of the dignity and value of good design; to counteract popular impatience of law and form, and the desire for overornamentation and specious originality, and insists upon the necessity of restraint of ordered arrangements, and of a due regard for the relation between the form of an object and its

use, and of harmony and fitness in the decoration put upon it."

The society is incorporated. Its members elect its officers and council and committees and a Craftsman Advisory Board which board is practically one of suggestion, and the clearing house of any dissatisfaction in the Governing Council. The members of the Council are elected for terms of three years, the personnel of one third of the Council changing each year.

As one of the chief purposes of the society was to stimulate good work; a jury was constituted which sifts the work presented, and rejects unacceptable offerings, and as the desire was to encourage workers, it was decided to state definitely to those whose work was rejected the exact reasons for the rejection, and to suggest to them how the work could be made acceptable, to inform them where similar work of fine quality could be studied; mentioning the literature, and the plates illustrating it, and in many cases, designs, profiles and silhouettes are redrawn to indicate beneficial changes. This is done with all rejected designs every week, unless criticism is not desired, and it has been found that while at first the comments of the Critic of the Jury were sometimes received as an impertinence, at present criticism is desired and welcomed by most of the workers.

The membership of the society is divided into three classes: Craftsmen, Masters and Associates. The Masters are those of the Craftsmen who have become accomplished in their crafts. Associates are those who, while interested in the work, are not craftsmen. The income is from the annual dues, which are nominal, and the percentage upon sales. All profits, above necessary expenditures, are devoted to the interests of the Craftsmen, who themselves have established Guilds which have stimulated both study and achievement. The Boston Society has been cited as typical for the reason that it is the parent society and one of the most active, and has a membership of 261 Master Craftsmen, 609 Craftsmen and 171 Associates, a total of 1,041, and its annual sales average \$130,000. It is therefore apparent that the Arts and Crafts movement has deserved well of the public.

It has had, and is having still more, an appreciable effect upon industrial art throughout the country. As the Standard of the work of individual Craftsmen rises, the output of commercialized work unconsciously rises with it. If it does not it suffers a pecuniary loss.

Therefore it is essential that the Arts and Crafts should reject inferior work. The best hope of these individual workers is to ascend beyond competition excepting by their peers, in fact it is the chief justification for their existence. Arts and Crafts in its earlier days was pathetically ignorant and charitable. That stage has passed, and at present its workers have often a unique claim to distinction in their work. Nothing of the work of handicraftsmen can equal in quantity that of the united efforts of large organizations whose purpose is to multiply examples. Quality of work is therefore the only hope of the Handicraftsman.

He must lead, not follow. An attitude of mind which acknowledges that distinction is an essential and is stimulating to all the arts, is productive of constant improvement, and is refreshing in the monotony of every-day progress.

It is this stimulus which the Handicraftsmen can give, and which they have already proved that they are giving.

THE RELATION OF BEAUTY TO FASHION

Frank Alvah Parsons

Desire for beauty has been a universal instinct since primitive man first sought to beautify his cave, tent, or hut with crude pictures of his prowess and with his weapons, his utensils, and his trophies. This instinct has always been manifest in the choice and arrangement not only of his own clothing and personal ornaments, but in those of his women as well; each, no doubt, having the thought of the other in mind in choosing these things.

In form, line, color, and texture, beauty, as men have conceived it, has found expression in his works since the beginning of time, and has always been given some sort of right to exist in relation to other elements considered essential to a complete life. The difference in various concepts of what constitutes beauty gives rise to what is known as *taste*, which we characterize as good or bad, according to the quality of the standard which we have accepted.

This desire for beauty has given birth to a universal aesthetic impulse which in our time seems to be concerned, at least in the matter of visual expression, with the same old conceptions of the house and its furnishings, and with clothes and personal adornment. With the essentials of these things, design is largely interested.

Fashion is a complex thing; often unintelligent in its conceptions, tyrannical in its demands, invincible in its power, but seemingly universal in its appeal. It varies only in form and violence of expression, according to nationality, historic period, sex, or age.

Babylonian women painted their faces because the queen did so; those of Carthage bobbed their hair in flattering imitation of a great general's female favorite; mediaeval ladies allowed their hair to creep from beneath their caps in defiance of the Church, merely because a daring court beauty found it alluring; Catherine de Medici allowed her skirts to be made so short that her pretty feet were partly exposed,

and we read that in a year "every well-born lady in France had gone and done likewise"; there were seventeen fashions in hats, too, in seven months, in France during the reign of Marie Antoinette, apparently all because *she* began it.

Women still do strange things in obedience to the mandates of fashion, but men, even in these stern and scientific days of one hundred per cent. efficiency, do not forget to put on straw hats May 15th and take them off September 15th, or to attire themselves in clothing for full dress in such manner that it is with difficulty one knows his most intimate friend from the others, or from the waiters who serve them. Fashion is, was, and probably always will be, one of the most important factors in determining not only what people will do, but when, how, and from what motive they will do it.

To see with a degree of clearness the relations we are considering, it is necessary to analyze to some extent to find the elements that are responsible for fashion, and for the universality of its power.

First, it is the way of human beings to tire of a long-continued presentation of one thing; monotony fatigues, and we crave variety, something that will arouse the lagging interest, stimulate new sensations and furnish something new for us to think about. Fashion recognizes this fact and avails itself of it to the limit.

In historic periods, or with individuals where a strong aesthetic desire has been encouraged, and where a high standard of taste has been attained, fashion has furnished constant opportunity for new expressions of beauty, but when the aesthetic sense has been ignored and a low standard of taste accepted, fashion has been no less dictatorial, no less changeable, but the results have been ugly, abnormal, and crude. Many of the present fashions speak for themselves.

Second, economic conditions and commercial interests are inseparable from the fashion idea. The law of supply and demand, the interrelations of industries, the competitive instinct, love of gain, and many phases of the economic structure have each a part in determining the nature, as well

as contributing to the power of fashion. These forces all influence the nature of a new fashion; but we must recognize that the excuse for a new fashion must be an appeal to the beauty or taste of the time for its existence, that a beautiful fashion is as desirable commercially as an ugly one, and in competition with other nations or individuals with a higher taste standard than ours, it is distinctly more so.

Third, fear is and always has been a compelling influence in human experience. It operates in the field of fashion in the form of a dread of being thought behind the times, too poor, or not intelligent enough to get the right thing at the right time. Of such things as these is fashion *per se* made. It is obvious that we may not ignore it, evident that it has a place in social and economic life, and certain that it should not be confused with beauty or taste, either in its nature or its function. What we desire, however, is to see precisely the relation that each bears to the other.

At present there is a strong movement in trade circles to make the United States of America the center of fashion in clothes for women, instead of Paris, which has held that position without question for three centuries or more. This means a tremendous change in economic proportion, but it means also that taste standards will either be appreciably lowered, or the American public must be made to consider these things from a new point of view, especially in the realm of trade, where prevailing standards of taste abroad have been accepted rather than appreciated by those who brought fashions in dress here for distribution.

Beauty is the result of such a choice and arrangement of form, line, color, and texture as will satisfy the cultivated aesthetic sense, or such an arrangement that a high-grade of aesthetic perception will react pleasantly upon its presentation.

Fashion is that ephemeral element in human life of which the aim is the satisfaction of the universal desire for change, for rivalry, for distinction; it appeals directly to our vanity and its caprices furnish splendid opportunities for invention and for commercial exploitation.

Of all the art professions dress obviously is the most subtle, complex, and interesting. It is in this field therefore that we may perhaps best see concretely the reactive influence of beauty and fashion.

In every industrial creation there should be first a clear conception of exactly what function the object created is designed to perform, and what prompted its inception. We may well ask this question first, for on the answer depends what part should be allotted to fashion in determining the result.

The sense of *privacy*, in which the first ideas of dress were conceived, seems practically to have faded from mass consciousness. This fact greatly influences our standard of beauty, since modern styles expose all that is ugliest of the human body, when one of the functions of clothes is to assist in concealing the ugly and in establishing an illusion of beauty.

Another reason for clothes is found in our natural *desire for shelter*. In some periods fashions have shown a distinct regard for this instinct, and a careful adaptation of dress to the peculiarities of geography, season, and other conditions. Now, however, there seems to be no indication that this aspect of the question receives any notice, for only parts of the body are considered—summer or winter, indoors or out. Thus has fashion or some other intruder crowded out of our conception a primary consideration in the design of clothes.

The third, and in this epoch the all-important reason for clothes lies in the *instinct for adornment*, with the belief that adornment means beauty, and therefore attractiveness of the sort produced by artistic decorative ensemble. The impulses active in this desire are aesthetic, and if rightly understood and directed, would result in the creation of beauty; misunderstood and misdirected, the result is an aggregate of inharmonious proportions, lines, colors, and textures, in discord with the individual and without decorative effect in combination. Both intelligence and the aesthetic sense will be active in any practical style, worthy the name.

It happens that every individual is attempting to satisfy

a set of aesthetic impulses, and at the same time the desire for self-expression, in the selecting and combination of the articles of dress we use. The quality of our results is the measure of our taste. The average taste (or beauty appreciation) of a family, a community, or a nation, rises no higher than the average taste of the individuals who compose the group. This makes general taste cultivation imperative if a national taste or appreciation of beauty is to be desired; and it is, if anything of aesthetic quality is to be created.

Perhaps a further analysis of the impulse for personal adornment, or if we may so designate it, the desire to be attractive, may emphasize the place beauty should have not only in our conception of fashion, but in our whole concept of dress.

Fundamentally the aim of both sexes is to dress in such a manner as will make each attractive to the other. It is the fashion to say in this epoch that this instinct to be attractive is confined to the female of the species. That is a mistake, although the standardization of men's clothes at the present time has done much to suppress this instinct through narrowing the range of choice in materials, patterns, and ornaments, from which he may choose and be in fashion without losing his identity as a masculine type.

Not until the nineteenth century did this standardization process begin, so that in none of the interesting historic periods, where beauty in dress was obviously an asset, did the male give less attention to detail than the female.

We read also that even "the grand ladies of the Renaissance, fighting off the traditions of Gothic mediaevalism, bared their heads, curled their hair, used paint and perfume, and bared their bosoms to the never-ending admiration of the cavaliers of their time."

We find the dress of Gabrielle d'Estrées, mistress of Henry IV of France, "so loaded with gold, silver, and precious stones that it was absolutely impossible for her to move about, and well-nigh so for her to stand, such was the extent of her finery." All this, no doubt, that the eyes of the gallant

Henry might by no chance rest upon his baroque queen, or on any of the less "loaded" ladies of his court.

In one of these periods it was the common practice to attract by exposing those parts of the body that were believed to make an appeal; in another it was the fashion to get the attention in different manner and to proceed another way after having done so, but the instinct to attract was the same in both, and the appeal was largely to the opposite sex.

This instinct, evident throughout history, is just as marked now and has taxed to the limit the inventive genius of those who create fashions, necessitating the constant invention of something new and unique that will satisfy both the conscious and subconscious desire to be attractive.

At such time as the aesthetic impulse has been intensely active and beauty has been appraised at its true value, fashions have given birth to extraordinary creations in material, form, line, and color; beautiful in ensemble and fascinating in detail.

On the other hand, history is replete with epochs in which fashions have been ugly, clothes tawdry, materials unattractive, and the people who wore them grotesque in consequence.

Rightly directed, this desire to be attractive may result in a high grade of taste if the conscious aim of the individual is beauty rather than sham, show, or that mob movement called fashion.

Sex attraction, however, is by no means the only element that prompts us to follow fashion. There is the vanity instinct, the desire to be pretty, even beautiful, just for the sake of the pleasure experienced in being thought so. To achieve this would seem also to require a knowledge of beauty and the elements of good taste in order to avoid the same common types of expression that are found when one is prompted by other impulses, and when one acts on them without thought of the true quality which the creation should achieve.

Many times too, perhaps always, in the complex motive which results in dress as an art, the element of rivalry is found. It is the sport instinct that urges us to look as well as our neighbor, to wish not to be outdone by others in fashion

or in good taste—a commendable instinct when judiciously exercised and wisely directed, but not when it tends to leave to fashion alone the choice of what to wear, and when, and where.

It seems that from any angle that one views this matter the concept of dress is and always has been, the source of strong aesthetic impulses, providing an unlimited field for creation, while it is indissolubly mixed with social, economic, and educational ideals.

It is fair to predict that if men and women have manifested identically the same primary instincts in relation to each other and to life, exactly the same impulses directing their acts, and precisely the same veneration for fashion for these thousand years, they are likely to keep on as long as there are human beings left to reckon with.

Since striving for beauty is and always has been regarded as not only legitimate but essential, we may assume that this is as true now as it ever was, and that if we are not producing beauty, it is not for lack of conscious recognition of its value, or of knowledge on the part of design leaders as to how to attain that quality.

THE IMPORTANCE OF A DESIGN REGISTRATION LAW

C. R. Clifford

In the last few years, we have been buried under the rush and turmoil of money making, and have developed an utter disregard for the welfare of others.

We had plunged into a vortex of greed that almost robbed us of our soul and only when upon the brink of national disaster did we awaken to the fact that no nation or business could stand upon the theory that a compact or contract was a mere scrap of paper to be destroyed at will.

But cancellations are not the only evils. Our conscience has not yet been awakened to a greater evil, that of design piracy, a violation of the seventh commandment, absolutely dishonest and indefensible, and yet so customary that it has blinded the whole business world to its destructive influence on trade development.

Under present conditions a thief can steal a truckload of silks and be sent to jail for a long term, but a manufacturer can steal all the designs on that truck and nothing is done to him.

The United States Government recognizes the legality of property rights in design but gives protection at an expense of about \$45 per design covering patent fees and lawyer's fees. Consequently the expense being so great, the law is seldom invoked.

There is a bill, however, before Congress called the Design Registration Bill which gives designers and manufacturers full protection for the small fee of \$1.

The bill does not suggest any new or enlarged measure of protection nor does it open any new principles of law. It simply provides that the law of protection already accorded in the Patent Law, should be covered by the more direct and less expensive administration of a copyright.

There never was a time when the passage of this bill would

be more heartily endorsed than right now. As a result of the European war, innumerable manufacturers who always depended for inspiration upon European designs and gave little encouragement to American talent, were compelled to open up studios of their own, with the result that today they are clamoring for protection. And this protection is not only rational from a business standpoint, encouraging as it does the study of design, the protection of design, the manufacture of design and the production of new materials, but it commends itself to any fair-minded man who views the situation from the standpoint of common honesty and decency.

Why open design schools, why support art societies, why educate designers if the products of their skill can be appropriated by anybody?

In defence of piracy, plagiarism is frequently explained as the unconscious absorption of another man's ideas. We must handle this phase of the subject as we handle kleptomania. The more serious attitude is that of the man who says there is no such thing as originality in design, that everything is old, and where a thing is simply changed a bit, we cannot claim it as original.

This is the smoke-screen behind which the pirate hides. He might as well claim that authorship is unprotectable because the author uses words that are not original. It is the way the words are used that make a composition original. There is nothing original in the form of the eye, nose, ear or mouth but the Lord has produced millions of faces with these common motives, and all original.

Nobody objects to following the style of a competitor's pattern. The period styles are all old. The greatest artists in the world followed each other in interpreting style but they didn't copy. A style is a relationship. A design is a definite interpretation.

But why quibble in the matter? There are so many designs that are palpable steals that we needn't worry ourselves by splitting hairs over those of questionable infringement. Every public designer will tell you of the orders that he receives to

copy patterns. Every girl that comes out of an art school will tell you that she isn't encouraged to be original; she is put to copying.

The custom involves the manufacturer in enormous overhead expense, compelling him continually to bring out new things, new things, new things, to take the place of designs, some of them only a few months old and which have been copied in cheaper and still cheaper materials, and cheaper and still cheaper workmanship, and ever at less and less money, but always in poorer quality.

Everybody is injured by this practice. The traveling man suffers, and the buyer has always the thought in his mind that in a few months some other salesman will come along with the same patterns pirated at less money—so he buys accordingly.

Any publisher will tell you that his advertisers are afraid to let him illustrate their new patterns and this fear of piracy prevents the publisher from giving his readers the news of new things and prevents the advertiser from benefiting by this kind of publicity.

The present conditions are analogous to those that existed in the literary world before the passage of the International Copyright Law. The public was fed with reprints of old authors and competition in the printing of these books left the publisher with little profit. New books that were brought out were invariably translations. Publishers preferred to reprint from foreign sources rather than pay royalties on original manuscript. And translators were all busy pirating everything and anything from Europe. Everybody in the business was a peddler of stolen property; everybody in cut-throat competition.

Then the Copyright Law was passed and immediately when piracy by translation was stopped, authorship was encouraged, and American talent developed amazingly. The book stores became filled with new books. The newstands were overloaded with new fiction. American talent developed almost over night and publishers, printers and writers have

equally shared in the great prosperity that has followed. To-day, no sane publisher in the United States would want to return to the piracy methods of thirty years ago.

In industrial art it is impossible to encourage development without protection. "Art for art's sake" sounds good in Bohemia, but "Protection for art's sake" is a more sensible slogan.

If we are to develop industrial art, we must protect industrial art. Let the worker be worthy of his hire. We talk art; we organize associations for the promotion and stimulation of art; we establish design schools—but we fail to lay the corner-stone for all such structures.

THE WIENER WERKSTAETTE

Prof. Gyula Mihalik

The cooperation between designers and craftsmen in Austria-Hungary has given rise to several industrial art establishments, the best known of which is the Wiener Werkstaette. This institution was founded under the leadership of Professor Josef Hoffman at the beginning of the present century. It has produced important results in applied art, especially in the line of striking novelties.

The Werkstaette was a cooperative undertaking by artists seeking to carry out their own ideas. Membership was gained by election and control rested entirely with the artists. Shortly after its first exhibition, the Werkstaette opened a shop in the center of Vienna which in its establishment and decoration presented a striking contrast with the appearance of the usual establishment. The public, at the beginning, was slow in grasping the significance of the original products displayed. At first the artist members of the work-shops paid little heed to the prevailing public taste but eventually were convinced of the necessity of compromising their artistic principles with the exigencies of practical demand.

The Wiener Werkstaette has its own work-shop but co-operates with outside craftsmen and with the industries. Their products include cabinet work, glassware, ceramics, silverware, jewelry and enameling, embroideries, printed and woven textiles, book-binding, printing, basket and leather work, and objects in wood and paper. The artists of the Werkstaette also carry out commissions for the decoration of rooms or entire apartments.

Before the beginning of the World War the dressmakers of Vienna exercised a considerable influence on women's styles. They developed fashion shows and in competition with Paris they achieved a certain vogue within the limits of the Central European nations. The Wiener Werkstaette entered this field by opening its own dressmaking shop. At first the artists were not very successful in their attempt to express the indi-

vidual character of the wearer in their dress. Later on, with slight accommodations to the prevailing fashions in regard to styles and materials they made a greater success and secured considerable influence in the world of fashion. The workshop now participates in fashion shows conducted by the Model Society, the membership of which includes dress-makers and others connected with the women's apparel industry of Vienna. These shows are visited by buyers and exhibits are made abroad with the aim of competing with Paris fashions. The experience in regard to women's dress is typical of the history of the Werkstaette in other lines. The public, which was at first shocked by the novel effects introduced, came gradually to exercise greater appreciation and eventually the products of the organization became the vogue with the result that the influence of the workshops was gradually extended and their business success assured. Since the war, the organization has been greatly weakened, but is still in existence and operating along the original lines.

AGENCIES FURTHERING THE SITUATION IN NEW YORK CITY AND CHICAGO

THE METROPOLITAN MUSEUM OF ART

Early recognizing the availability of its collections for inspiration, study, and comparison in the making of the industrial arts of today, the Metropolitan Museum of Art has consistently offered, as one of its functions, opportunities for their use by students of the arts, designers, and other workers, through various privileges and methods of approach.

For the individual, permits for sketching, measuring, copying and photographing are given, with locker conveniences, easels, a dark room for photographers, and rooms for study, and for discussion. Photographs of all objects in the collections are sold in various sizes at a nominal cost, while special photographs or blue-prints to show details of ornament or manufacture are made on application. A member of the staff meets anyone desirous of his services in looking up subjects or objects sought in galleries or study-rooms. Rooms containing collections not on exhibition, especially examples of textiles, in charge of assistants under the heads of the departments represented, are free of access to all students, and an excellent library of 41,000 volumes and 55,000 photographs, covering every field of art and decoration, is open for consultation and study.

Since the books and photographs of the library must be used in the building, a collection of twenty-eight thousand lantern-slides and many photographs and other reproductions of objects of art of all kinds, as well as original examples of textiles, etc., are lent to students, lecturers, and others, under simple rules and at a nominal fee.

Besides these opportunities given to the individual worker,

the Museum offers regularly each year various courses of lectures on general and special subjects, many of them directly planned for the student of art and design, with the intention of encouraging and stimulating the use of the collections. In this connection emphasis is laid upon the courses of seminars, or study-hours, conducted by a trained instructor planned to give practical help in the problems of design and color which enter into every-day life and intended especially for designers, buyers and salespeople in shops, and also for those of the purchasing public who are interested in well-designed merchandise and its use. Here the method of contrasting current with Museum examples is used. These informal talks are supplemented by a special course of lectures, given under the terms of the will of the late Jessie Gillender in memory of her father, Arthur Gillender, "for the benefit of artisans engaged in crafts demanding artistic study as expressed in contents of the museum."

The Museum serves the industrial arts aggressively, also, in two ways of importance: by contact with factories, shops and designers; and by contact with trade journals that reach these groups. The Associate in Industrial Arts, appointed in 1918, visits factories and workshops, and makes appointments with manufacturers and designers at the Museum. By keeping abreast of the practical requirements of production methods and the current demands of the markets in the art industries he seeks to meet manufacturers and designers on their own ground in search for ideas, motives, designs, and layouts. As a result he frequently aids in the preparation of new material from its first conception to the final product. The trade journals are provided with authoritative text and suggestions for editorial and other material, always selected or prepared with an eye to trade requirements; they are also kept informed as to all new arrangements of galleries, accessions, special exhibitions, etc., of interest to their respective trades. An annual exhibition is held to show how the trades use the museum resources and services; the last of these (the sixth, 1922) contained 500 objects, the work of 100 firms and indi-

viduals. The objects shown are always representative of the best work produced in the various industries. Contact is maintained with an active list of about 500 firms and individuals and with over 150 trade journals.

All of these privileges offered by the Museum are easily obtainable by the individual, or by schools or groups of people. A card providing for them is issued either on personal application at the Information Desk, or on written request to the Secretary of the Museum. In the case of personal help desired, the application may be made to the Associate in Industrial Art.

THE ART CENTER

New York City

The Art Center was incorporated to advance the decorative crafts and the industrial and graphic arts of America. The constituent societies are the Art Alliance of America, Art Directors Club, American Institute of Graphic Arts, New York Society of Craftsmen, Pictorial Photographers of America, Society of Illustrators and The Stowaways.

Each of these organizations has a special field of activity clearly indicated by their constitutions and rules of procedure. They are grouped together for mutual benefit. The Art Center building, which is owned by the constituent societies, has six exhibition galleries and fourteen club rooms or studios. The collective interests of the seven constituent societies are cared for through the Board of Directors of the Art Center. This Board is elected from the membership of the above named organizations. Their combined membership is over three thousand. This membership is chiefly drawn from the ranks of artists allied in some way to the various trades and industries.

Exhibitions, conferences, lectures and practical demonstrations are utilized for general educational efforts fostering the sensible application of the arts of design to the every-day affairs of life. Through the efforts of the constituent organizations there are classes in design and craftsmanship at the Art Center building, especial attention being given to the decoration of textiles and ceramics.

Through exhibitions and conferences special efforts are made to advance all forms of book or magazine illustrations and all those expressions of the graphic arts applied to advertising and modern methods of publicity. The best examples of pictorial photography are also constantly on view as a means of encouraging men of talent interested in the artistic possibilities of camera work. In fact the Art Center is intended as a rallying-point for all individuals and societies having the development of decorative and ornamental design at

heart or that are devoted to the practical application of American Art to the home life of Americans.

Through the Art Alliance, artists, art students and artisans are advised and directed with the assistance of experts regarding their several studies and pursuits. A general registry for the arts is constantly consulted in this society's headquarters. A department of advice and information is maintained and a bureau for placing designers in the various trades and industries keeps an up-to-date list of applicants and artistic opportunities.

THE ARCHITECTURAL LEAGUE OF NEW YORK

The Architectural League of New York City is an organization representative of the arts, professions and crafts contributory to the art of architecture. Membership includes painters, sculptors and designers in the crafts. It has recently established a class of lay members selected from among the manufacturers of artistic materials and products.

The League holds an annual exhibition which includes not merely drawings and photographs of buildings but sculpture, mural paintings, furniture, lighting fixtures, fire-place fittings, hangings, and fabrics of all kinds, carpets, pottery, tile work and wall coverings. To encourage the crafts and manufactures and to emphasize the importance they have in the League's vision of the relation of the divers arts to architecture, and in recognition of the place the machine is beginning to occupy in the production of beautiful things in quantity, a medal for excellence of design and workmanship in native industrial art of rank equal to those for architecture, painting, sculpture and landscape architecture was established in 1920 and is annually awarded.

ART-IN-TRADES CLUB

New York City

The Art-in-Trades Club of New York City, founded in April, 1906, is an association of men connected with or interested in the art trades. Its object is: mutual advancement, social intercourse, and study. The club is composed mainly of interior decorators; manufacturers of decorative furnishings, together with their designers and salesmen; also of representatives of the textile, furniture, and fixture industries; and of designers and workers in the art crafts, such as wood, leather, stained glass, metal, etc.

The aims of the club are: a practical study of art in trades; the fostering of mutual helpfulness and understanding; and the promotion of good fellowship among those working in the trades represented. The club maintains a club room and holds meetings throughout the season, at which the speakers are specialists in their respective callings and at which discussions of mutual interest are always encouraged.

SCHOOL ART LEAGUE OF NEW YORK CITY

The School Art League was founded in 1911 to foster the interests of art education in the public schools of the City of New York and to offer opportunities to pupils, teachers, and the public for the study and discussion of art.

Its memberships in June, 1922, numbered 4,114 Junior Members, high-school pupils who pay ten cents a term; 351 Teacher Members who pay \$1 a year; and 224 Annual Members who contribute from \$5 to \$100 toward the work of the League.

The work of the League includes provisions for lectures to public school pupils and teachers, the award of a number of art school scholarships, the conferring of medals for excellent work in drawing, design and craftsmanship to public school pupils, and maintenance of Saturday classes in drawing. The lectures of 1921-22 had a total attendance of 22,072. Eight of these were given in the Metropolitan Museum of Art on Saturdays for junior and other members.

Each of the industrial art scholarships enables a talented boy or girl graduate of a city high-school to have one year's training at a professional art school in some branch of applied art, chiefly commercial design, costume illustration or interior decoration. The students go to Pratt Institute or to the New York School of Fine and Applied Art. These scholarships are financed on a cooperative basis whereby both of these art schools make a concession in their fees and the remaining cost is defrayed half by entertainments and sales by the high-school pupils and teachers, and half by the School Art League. Nineteen of the twenty-seven city high-schools are represented among the present thirty-five scholarship students. During the ten years that the League has awarded these scholarships more than 150 boys and girls have been aided. The majority of these have made good and some are now earning large salaries. Several of the scholarships have been endowed, others are supported through the cooperation of

the Sorosis Art Committee, the Study Circle, and by contributions through the efforts of the Scholarship Committee.

Medals conferred by the League are as follows:

(a) The Fine Craftsmanship medal, designed by Victor D. Brenner in 1911, is awarded each term in each of the 295 workshops of the elementary schools to the student doing the best work. More than seventy of these medals have been endowed through the cooperation of the workshops. About 600 a year are awarded.

(b) A medal given by the Art-in-Trades Club, designed by Gaetano Ceceri in 1917, is awarded for excellence in design at the close of the first year in each of the city high-schools. Fifty-four are awarded each year.

(c) The Alexander medal, designed by John Flanagan in 1915, is awarded for merit in drawing at the close of the second year in each high-school. This medal is endowed in memory of the League's first President, John W. Alexander. Fifty-four are awarded each year.

(d) The Saint-Gaudens medal for Fine Draftsmanship, designed by Chester Beach in 1917, is awarded at the close of the third year in each high-school. This was endowed by Mrs. Helen Foster Barnett. About 40 are awarded each year.

(e) A competition in drawing is held at the close of each term with a team of five students from each high-school drawing a specific subject in a limited time. A jury of prominent artists marks the work and the school whose team secures the highest score holds the Alexander Medal Trophy for a term. Each member of the winning team is awarded a small replica.

Two Saturday morning classes in drawing are maintained at Washington Irving High School by the League, which pays the salaries of the teachers. These classes, one in drawing from still life and the other from the draped figure, consist of gifted high-school pupils who are desirous of improving their drawing through this extra training.

The above activities are maintained at an annual cost of less than \$5,000. All officers serve without pay.

THE ART INSTITUTE OF CHICAGO

For many years the Art Institute has held exhibitions of applied arts, national in scope. Whenever opportunity offered it has shown exhibitions of foreign applied arts. It is, this year, holding an exhibition of examples of work from the Wiener Werkstaette. Applied-art exhibitions will also be held in connection with the Chicago Architectural Exhibition and the exhibition of the Garden Club of America. Twenty-one prizes amounting to \$1,475 are offered for the best examples of modern applied arts in the above exhibitions.

It is planned to hold lectures on Sundays during the year 1921-22 under the direction of the Association of Arts and Industries dealing with various phases of industrial art. These lectures will deal principally with the collections of the Art Institute and their use by the specific trade involved.

It is proposed to link the industrial art teaching in the school of the Art Institute with the industries of Chicago through the establishment of fellowships in the school to be endowed by specific industries. In entering upon this arrangement it is the hope of the Institute to produce one or more designers thoroughly trained and apprenticed for a specific time to the industry supplying the funds for the tuition of such individuals. It is possible that the forwarding of this plan may involve instruction in the Art School for part time and work in commercial establishments for part time.

The Institute is a center of activity for the art clubs and organizations of Chicago and its club rooms are much used by these associations. A new building to be devoted entirely to the decorative arts is almost completed and will probably be opened to the public before January 1st, 1923.

ASSOCIATION OF ARTS AND INDUSTRIES

Chicago, Ill.

The Association of Arts and Industries was formed in Chicago on March 1st, 1922, by an amalgamation of two existing organizations—The National Art Service League and The Alliance of Art and Industry.

The object is to stimulate the application of art to the industrial and aesthetic development of the country. It is hoped to attain this end through—(1) acquaintance, mutual understanding and cooperation between artists and manufacturers; (2) periodical exhibitions of the various arts and their application to industry; (3) the establishment of an industrial art school in Chicago.

Monthly exhibits of the various branches of industrial art are planned in the leading stores of Chicago, for which space has already been offered. Frequent meetings will be held at which persons eminent in the arts and industries will speak. The annual exhibit of applied art at the Art Institute will be held under the auspices of the Association.

The organization includes many prominent representatives of the art industries among its officers and is reported to have the earnest support of manufacturers as well as of the Art Institute of Chicago.

CONCLUSIONS

This country finds itself unexpectedly today the richest country in the world. Economic leadership is forced upon it and such dominance brings with it the demand for leadership in many other directions. In many fields we are sadly unprepared for such world ascendancy and in none is this more true than in the field of art. We represent a strong national life with marked individual force and characteristics, but it is a national life that has been absorbed in the conquest of material things and the gaining of material comforts. It has not yet paused to concern itself seriously with interest in art or beauty.

We are, moreover, a nation of many races with different ideals and tastes. Culturally we are a mixture. To a considerable extent the various elements in our population represent the aesthetic tastes and habits of their forebears, leaving us with no singleness of quality in our ideals and art.

On the other hand, our people represent standards of living considerably above those of any other country and consume an amount of goods in which art quality has a recognized value greatly in excess of any other nation. The demand for artistic goods, now large, must inevitably increase. Whether this supply is to be produced by ourselves or borrowed from others depends on the direction that our national culture takes. Rome borrowed the art of Greece. The trade-rich cities of South America before the war decked themselves with the art of Latin Europe. We have largely built upon or borrowed our art from the old world. We do so today. Whether this will continue in the new phase of economic dominance on our part and the sapping of creative vitality in the older countries of Europe remains to be seen.

One matter is clear—if we are to attain fullness and maturity in our national life we must inevitably reach the point of expressing ourselves artistically as well as materially, for no nation can attain full spiritual and intellectual development until it comprehends in its own life all the powers of expression needed to satisfy its aspirations and desires.

On the economic side we have obviously the strongest reasons for endeavor in this field. At present we pay a heavy toll to Europe for art products and designs. It is not only desirable to save this outlay but to gain the increased value for our goods that higher artistic standards will bring. The United States has practically but one market for the products of its art industries. Paris has the whole world for its market. In the future the expansion of our trade must take into account not only the production of goods which are required to satisfy material needs, but which may command a world market because of their artistic value.

Whether we borrow, or whether we create, the art that will minister to American needs will be the art of the machine. Only through quantity production and the machine can the needs of modern democracy be met. Consequently, our problem in artistic expression is to master the machine and in so doing to create art for the people. This problem means finding expression in terms appropriate to modern life through a machine process with which the designer no longer has intimate personal contact.

Whether we continue for long to depend upon the artistic culture of the older countries or whether we advance to self-sufficiency depends upon a number of elements, of which the first and most important is the question whether our standards of public taste are to rise to such an extent as to mean an enlarged demand for finer things among our people as a whole. In a democracy constituted as ours we cannot expect high achievements in art unless the level of appreciation is raised in the mass. Public taste, however, can advance but slowly, and it can only advance through organic forces that are naturally in play.

EDUCATION OF PUBLIC TASTE

For one thing, we may expect the influence of the public schools to affect in some degree the outlook of the coming generation. Drawing is commonly represented as a subject of instruction in elementary schools located in urban communities throughout the country,

and instruction in drawing and color, the principles of design and art appreciation is generally given in the high-schools of the larger cities.

This instruction should not only provide a foundation for later specialized training, but should also constitute an element of much significance in the education of popular taste. As a result of the influence of instruction in the above subjects received by a large portion of the young people of the country we have reason to anticipate in future years a considerable advance in the general appreciation of artistic matters. The extent to which this hope will be realized and the extent to which this work will forward the evolution of future designers depends in large measure upon the degree to which such instruction is carried beyond the point of mere training in drawing and achieves some understanding of aesthetic values and of the meaning of art in daily life.

Our public monuments, our fine buildings, our great railroad stations, our theatres, our museums and exhibitions of fine and applied art, our leading department stores and shops with their wealth of artistic material are all helping to develop public taste. But these at present are all too few and too confined to our large centers of population. A compensating fact in our national life and one that is a force of no mean value is the influence of women's clubs that are scattered throughout the country in the small towns. These clubs are often the target for ridicule, but it is unquestionably a fact that both in literature and in art they exercise a very strong educational influence in the development of taste.

More potent, perhaps, is the direct influence of our illustrated art magazines, and those devoted to women's interests, and in particular our graphic advertising.

Where emulation and opportunities for comparison are present the situation moves rapidly, if not always upward. Where these are absent progress is slow.

Where there is rivalry and strong competition to catch the eye, as in the case of women's dress or graphic advertising, the demand for new ideas, finer ideas, more striking ideas, is

continuous. This competition may not always work for beauty in its fullest sense, but it furnishes continuous aesthetic experiences and on the whole makes toward a higher appreciation of the beautiful. In the case of women's wear, the native feminine instinct seeks constantly for the most attractive adornment. Seasonal requirements give opportunities for new and fresh effects. The general mode is set by the expensive and exclusive makers. Imitation follows all down the line, affording at each economic level opportunities for individual choice in regard to materials, color and form.

Throughout her whole life, woman is thus constantly practicing observation, comparison, discrimination and selection,—all aesthetic experiences—in regard to her apparel. Fundamental social forces are in play, and in the resulting activities aesthetic education is a natural and inevitable process. In these conditions demand and supply are in vigorous reaction. The whole situation is in a ferment and carries its own germs of progress.

On the other hand, in the case of things within the household such as wall paper, table china, carpets and furniture, the level of design is more static and the demand for novelty and fine quality less emphatic. The reasons for this difference, which is a difference of much significance in the problem of applied art, are several. In the first place the element of emulation is less. Only the exceptional woman recognizes that the room settings and furnishings of her home are as important, an expression of personality as the dress she wears. Again is the fact that the individual home is open to the inspection of but a few. Our lares and penates do not travel down Fifth Avenue for the inspection of the multitude, and opportunities for observation and comparison such as exist in the case of women's dress are comparatively lacking.

Another element that contributes largely to the difference in the two situations is the fact that our household furnishings are relatively permanent. They are not changed twice or four times a year and the need for novelty, for fresh effects, is consequently not felt to the same degree. As a result of these dif-

ferences the American housewife is fairly content if her home is comfortable, clean and cheerful and the household furnishings give evidence of being "as costly as the purse can buy." All this leaves us, as regards a large portion of the field of applied design, with lower aesthetic standards and less cultivated perceptions. The fine thing at the top has here less opportunity of effecting the popular taste through the normal operation of supply and demand and the rate of advance must be more gradual.

Our art museums represent a very important influence in the cultivation of public taste and may be expected in the near future to perform another service of perhaps equal value. Rich collections of source material in the applied arts are an essential element in the education of the designer and the salesman. A few of our museums have already developed very considerable collections of this character. Others have made beginnings, while others still look with indifference on this field. The possession of such material, however, is not synonymous with full use or service. These latter elements as contrasted with mere collection and exhibition are only beginning to appear in the outlook of the American museum. The earlier stage has been dominated by the point of view of the archaeologist, a point of view that stops with correct historical arrangement of the material in each particular field, and aims at informing and cultivating the public taste. The new aim just beginning to be recognized and one of equal importance, is that of service to the industries, to the fields of trade and commerce that have made the museums possible.

The records of the survey show that our designers and manufacturers do not use the art museums to any large extent. They have not acquired the museum habit and this is partly due to the fact that the museums as a rule have not taken active measures to reach and serve the designers. They have said, "here are our treasures, our doors are open, come and take advantage thereof." But they have not studied the designers' needs or developed measures to satisfy them. In an upward movement of industrial art it is essential that the museum

become a live factor. If it is to serve effectively, it must develop within its organization special machinery to deal with the problem of the manufacturer, designer and salesman. To accomplish this it must direct its attention to modern, present-day needs. It must learn about these needs, and put forth active effort and carefully planned policies to meet them.

Museum collections have their greatest value in preserving and presenting what is finest in the art of the past. But with the museum of tomorrow, this will not be sufficient. We need to know more about the fine things of today, and it seems not too much to hope that examples of high achievement in our own and foreign industrial art may find a place, if only a temporary one, in our museums.

In any event, we need far more frequent exhibitions of our industrial art products in order that the public may learn more about them and the designer and manufacturer gain stimulus and suggestion. To obtain the best results, the material admitted to such exhibitions should be selected by persons of recognized artistic taste, and it should be exhibited under conditions that will attract most attention to its aesthetic quality. In New York City, in addition to the museums, a number of organizations are now helping to meet this need—the Art Center, the Art-in-Trades Club, the Architectural League, the Silk Show—but in many localities the art museum is the agency best calculated to fulfill these requirements.

One influence that might be expected to educate the public taste more than has been the fact is the arts-and-crafts movement. This movement has proceeded haltingly with us and its influence upon standards of industrial design has been practically negligible. Quantity production and distribution have so completely dominated consumption with us that craft work has received little attention on the part of the buying public. Nor has the movement except in a few instances engaged the energies of persons of marked artistic ability. It has afforded satisfying and stimulating vocations to many, but products combining fine workmanship and a high quality of design have been rare. Some most excellent work in silver has

been achieved, some pottery beautiful in glaze and decorative quality and some jewelry of beauty and distinction among the large quantity produced.

There is no subject about which it is easier to rhapsodize and overstate than that of handicraft work. Ever since Ruskin and Morris the principle that only through the working out of an idea in the material can true beauty of design be achieved has been held by many apostles of art with the vigor of a religion. The half-truth involved is so appealing that it is often accepted for the whole. It is safe to say that no good design can be evolved without an intimate understanding of the material and of the possibilities and limitations of the process involved in the finished product. This does not mean that the designer must work out his salvation by personal execution. It means he must thoroughly appreciate and gauge all the forces and practical considerations that bear upon the evolution of his design into material form. More than this on the manipulative side we cannot have, and more than this we do not need in the designer for the machine.

Long before the industrial revolution and the age of the machine the designer and the craftsman had begun to separate their functions. The brilliant French *ornemanistes* of the eighteenth century who have left such a remarkable record in the furniture, ceramics, textiles and wall papers of their time, were often not craftsmen but designers who understood the possibilities and requirements of the crafts.

Notwithstanding all this the arts-and-crafts movement in our country needs to be nurtured and encouraged. It should become a vital element in our artistic evolution. Ideally its creations should play the rôle of the poetry of industrial art where imagination has freer range than in the case of the prose of the machine product. But it should be encouraged only on the condition that it produce art and not merely craftwork.

The only country that has made a real connection between handicraft work and industrial production would seem to be Germany. The policy consistently pursued for many years in that country of supporting industrial art schools in which a

liberal amount of handicraft training found place had resulted before the war in making craft work so familiar and so readily obtainable that such products had gained large recognition and were widely sought for. It was a case of supply developing demand with the result of introducing very generally a new order of taste.

The reaction upon industrial production was very extensive, and wall decorations, furniture, lighting fixtures, ornamental hardware and pottery in the German home, hotels, public and commercial buildings soon reflected the new order.

One notable fact about this development was that not alone were exceptional and expensive products created, but homes and establishments of moderate pretensions were affected by the new spirit and made use of the new material.

Another factor of much importance in this matter of developing public taste is the education of the retail salesman dealing with artistic goods. It is he who usually exercises the largest influence upon the individual purchaser, and upon his possession or lack of taste and knowledge often depends the question of whether the fine thing or the commonplace thing is bought. To quote from the Journal of the English Design and Industries Association, "Given an educated and specially trained race of distributors they would leaven the whole lump, working backward on the producer and forward on the public."

New York City has developed an admirable agency to effect the artistic education of the salesman in the Art-in-Trades Club, and opportunities would seem to exist in every city of any size for the organization of associations on similar lines or at least for developing somewhat similar educational features through existing organizations.

PART OF THE MANUFACTURER

Another element essential for rising standards in the art industries is the degree to which manufacturers increasingly recognize the fact that artistry in their products is a commercial asset. Such recognition is true today of but a small fraction of American producers. Its extent varies in degree in the different art trades, but

taken as a whole it can hardly be denied that American manufacturers are concerned comparatively little with the effort to make really fine things. It is true that a large majority employ designers. These enable an acceptable and marketable quality to be given to the products, but serious effort toward the creating of more and more beautiful things is rare.

The common attitude in many of the art industries is that it is needless to be troubled about finer designs, because the public buys what is offered. In each trade it is left to the progressive manufacturers and those dealing with the upper grade of consuming taste to realize and work upon the principle that in the art industries the supply largely creates the demand; to realize that these industries represent a field that is not limited strictly, like boots and shoes or hardware, but deals with a market which is always extensible provided the wares offered are increasingly attractive.

The genius of America in industry is quantity production. This inevitably makes towards standardization of form and means that in the large bulk of our products we must always expect limitations in variety as well as limitations in quality of taste. To raise the artistic level of this great middle field is our main problem. The richness and extent of our national life will always provide an upper margin of fine taste and demand and this margin may be relied on to support the production of continuously finer and more beautiful things. It is largely through the opportunities for progress and achievements thus presented that the whole situation will be influenced and advanced. We must reconcile ourselves to the fact that industry will of necessity always be divided and differentiated as regards its grades of merchandise and that the skirmish line of advancing standards must to a large extent be carried forward by the comparative few in each branch of industry that cater to the best in consuming taste.

Indications that increasing attention is being paid to this middle field of production are apparent in Europe. France is evidently determined to make her industrial arts play a larger part in the world's market not only in articles of luxury as

heretofore but in simpler and less expensive products. Her thoughtful manufacturers, her school men and artists are united to develop French applied art that shall be an expression of modern taste and that shall not only form a larger feature in her export trade but shall minister to the simpler needs of her own people. A great International Exhibition of Modern Decorative and Industrial Arts is to be held in Paris in 1924 and already the French designers are searching for motives that shall give the key to the national exhibits.

In Switzerland and England also the effort indicated both in schools and in exhibitions is towards the development of better designs for the common grades of manufactured products. The pre-war situation in Germany has already been touched upon and the flood of textile and other designs that have passed into this country in the past two years indicates that the German designers are awake to the opportunities afforded by our standard manufactures and determined to have a share in them.

One need in this complex situation is the enactment of a law that will protect designs from being copied or stolen. As a nation we find our designs and ideas in the art industries, not by originating, but by copying. Such a practice checks progress and advancement in quality. It penalizes the progressive and forward-looking manufacturer. A method of legal protection of designs that will be simple, inexpensive, and effective in operation is unquestionably a great need in the situation. A copyright law formulated by the Design Registration League is shortly to be brought before Congress and it is to be hoped that it may present a solution of this very important question.

Finally, we must have better designers. Not that we have not good designers in the art industries today, but we have not enough of the highest training or capacity to meet the advancing demand. Our manufacturers in certain industries go to France and other countries for their best designs not because they can thus obtain them more cheaply, not even because of the prestige of Paris, but because they can find there better designs.

DESIGNERS

What can we do more effectively to produce our own high grade designers?

Before endeavoring to answer this question it may be well to review the methods by which designs, outside of those for the printing arts, are obtained for industrial use. A certain proportion, now a small one in most industries, are obtained by purchase in Europe. Another portion, in certain industries still quite large, are obtained by copying European examples. The remainder are developed by designers in this country. This latter supply comes through three channels: (a) a staff of designers connected with the producing establishment; (b) commercial design studios sometimes producing for many different fields but often specializing upon designs for a particular trade; (c) free-lance designers.

The staff organization of designers within the establishment, headed by a man of exceptional artistic and practical ability, affords a direct opportunity for the progressive employer to develop a high standard of design in his own product. The limitations of this plan come from the fact that in the industries where the demand for output is large and varied, few, if any, establishments can afford to maintain a designing staff large enough to supply the needed variety of new ideas.

Whether a design staff be maintained in the establishment or not, the character of the design that issues in the material product is dependent first of all upon some person in the establishment who furnishes the key or motive for new designs. This person has rarely received training in an art school. He has generally developed through practical experience in the business. But to be successful in any large way he must be a man of keen observation, appreciative of artistic quantities, of fertile imagination, and sound judgment. Such persons are sometimes members of the firm, sometimes managers and sometimes, but rarely, head designers. They influence the quality of designs at times by direct suggestion, at times merely by the power of selection. In the textile trade they are called stylers, but whatever may be their position they are always present and are in truth the super-designers, those who give

the key and trend to the new creations. These men are true products of the country's civilization and evolve in much the same way as leaders in finance or business or engineering. They are more or less independent of schools and find their place through inherent strength and talent. It is evident that upon the quality and number of such persons that our civilization can develop and support, depends to a large extent the future of American industrial art.

In certain industries the commercial design studio aims to meet the limitation of a producing establishment staff by maintaining an organization large enough to comprehend many special abilities which supply the needs of many establishments. In the field of graphic advertising such studios have attained a remarkable growth and represent one of the main sources through which illustrative advertising matter is supplied to the trade. In relation to printed silks and cottons and wall papers they have as yet reached only a meagre development and, on the whole, have hardly obtained larger recognition than that given to free-lance artists. The influence of such studios upon the standards of American designs and their place in the commercial world depend largely upon the character of the men at the head. Under men who possess great artistic and practical ability as well as high ethical standards, such studios in the near future may play a leading part in the development of industrial art in America and may come to occupy the position that they hold in Europe. Under inferior leadership they may mean simply the exploitation of a staff of poorly remunerated designers.

In a large sense, the commercial studio of design bears a striking resemblance to the craft workshop of the guild period of industry. In such a workshop the master craftsman was also the master merchant. He bought his own raw material, transformed it in his shop with the aid of a few journeymen workmen and one or two apprentices, and finally sold the finished product in the market. In no other period in the development of industry has the apprentice had a natural place save in this. Here in the small shop, with its stable conditions,

it was not only to the master's interest to impart the best possible training to the apprentice, but he was placed in the best possible position to accomplish this. These conditions have disappeared from modern industry. The master merchant is no longer the master craftsman. He has removed from the shop to the office and it is no longer to the personal interest of his skilled successors in the workshop to spend time upon the training of the novice. The design studio, however, almost reproduces these conditions of the older day. The head of such a studio is both the master craftsman and the master merchant. His raw material consists of ideas. Through skill and knowledge these are transformed and materialized to meet the requirements of modern production. These resultant commodities he sells as master merchant in the market. Such a studio presents almost the same opportunity for training as that of the old-time craftshop of the guild.

Presided over by a man superior in practical capacity and in technical knowledge to those generally available for school instruction, a man who necessarily comes to know the latent capacities as well as the limitations of his workers, there is presented an opportunity of real guidance and training not surpassed surely, if equalled, in the art schools. Such studios under favorable conditions may thus become very important training schools for the development of young talent. To accomplish this, leadership of high intelligence, artistic ability, and practical knowledge is needed as well as far-seeing and enlightened self-interest.

Free-lance designers furnish a large fraction of the designs used in several industries, notably in some of the branches of the textile trade, in the manufacture of wall paper, and particularly in the case of commercial artists producing advertising matter. Conditions in the last-named field, however, are radically different from those of the manufacturing industries and have been dealt with separately under the study of the printing trade. The following remarks apply only to the manufacturing trades.

Free-lance designers, constituted very largely of young per-

sons who have had various degrees of art-school training, represent a large amount of real and latent artistic ability. As a body, however, they are launched upon a sea on which they obtain little guidance. Having received little or no training in the special requirements of production in the art schools, they are obliged to pick up such knowledge as best they may. The strongest and most capable finally succeed and obtain individual recognition, but the great number, without systematic, orderly direction lead a precarious existence.

It is true that many manufacturers welcome the free-lance artists as an institution and consider their existence an easy solution to the problem of obtaining designs. This attitude rests upon the fact that a plentiful supply of material is brought to hand for selection and is obtainable at moderate and sometimes extremely low prices. In quality, however, this supply is to a large extent mediocre and only in small part suitable for manufacturing purposes. To be sure, a large variety of motives are presented in this way, many of which are novel and some of which are valuable, and by the purchase of such material many establishments avoid either the expense of a design staff or the higher costs of purchasing in a high-grade commercial studio. As a system of production and supply, however, this large dependence upon free-lance artists is not one that makes for advancing standards and it is unquestionably one, on the other hand, that is extremely wasteful of artistic talent.

The true significance of the present situation is probably that of a necessary transitional stage towards something more stable and organically sound as a method of supply. In Europe, particularly in Paris, commercial studios supplement to a large extent the work of design staffs in producing establishments. They are recognized institutions maintained by persons of marked ability with high standards both artistic and ethical and they play a large part in the development of designers. It is difficult to see how the standards in the trades using outside designers can approach those of Europe until we have developed an equally stable and progressive system of design production and supply.

TRAINING OF
DESIGNERS

In whatever relation he works, the problem of the designer still remains. In spite of the subordinate rôle that he sometimes plays, it is to him that we must look for the final expression of industrial design and upon his talent and capacity that we must largely depend for the realization of beauty in our art products. For his development under present conditions, it is evident that we must depend at least in part upon training furnished by the schools.

At the present time only a minority of designers in the art industries have been so trained. Outside the field of commercial illustration in the printing industry data were obtained by the survey as to the training of 902 designers. Of these only 328 received training in day art schools or some form of technical or industrial school and 574 had been trained in commercial practice. Many of the latter group had attended evening art classes.

Before facing the question of school training it may be well to refer to European practices in the matter of provisions for training designers. In France, England, Germany, and Austria, there exist unified systems of applied-art schools scattered throughout these countries, which to a certain extent lead up to central schools at the capital or other important centers. Such schools receive aid from both the central and local governments. The local schools permit large numbers to be reached, and in a sense they serve to cultivate special talent, which then oftentimes seeks the advanced work of the central schools. For admission to the higher schools, completion of the local school course is sometimes requisite, in other cases examinations are required.

In some of these countries, more particularly in the case of England and France, such schools are frequently inspected by government officials or committees consisting of individuals of the highest ability in various fields of fine and applied art, and the results of these inspections are a very important factor in modifying and advancing the work of the schools.

Besides the general art schools there exist in many of the

countries of Europe special schools devoting themselves to a particular field, such as printing, furniture, ceramics, textiles, or laces and embroideries. These schools often deal largely with the technical side of production but instruction in design is always given.

In these schools of applied art one is likely to find small classes. The American point of view that insists upon large numbers as the first criterion of a successful institution is not accepted in Europe, where quality of performance is regarded as the important end and numbers are a secondary consideration.

Taken in the large, the main factors of advantage that stand out in the European art-school situation as compared with our own, may perhaps be summed up as follows: first, a better system in the selection of student material, at least for the higher schools; second, supervision and inspection of classes by a central authority; third, better quality of instructors as regards culture and training; fourth, frequency of small classes.

AMERICAN ART SCHOOLS

Our own art-school situation is in marked contrast to that of Europe. We have but one notable case of a school of applied art under state administration, although several other institutions receive financial support from state and city. Our remaining schools represent a variety of conditions. Some are on endowed foundations, some are connected with museums, some with colleges, and some are conducted under private auspices. That a democracy should develop and support its own schools when their need is manifest would seem to be a sound principle, and the time is surely not far distant when schools of applied art supported by public funds will be called for in each of our large cities. It is, however, a far cry to an efficient system of state and city supported schools, and much farther to that of a great national school so often suggested as a panacea for all our difficulties. Whatever the future possibilities of such a system, it is evident that for the present we must build upon what we have, and it is not unlikely that the variety repre-

sented by our present schools, and their large dependence upon private initiative, will be found as well calculated to forward our needs as a more formal and paternalistic system of government schools.

On the other hand, it is to be seriously questioned whether we need more schools in this field. We undoubtedly need schools that function better, and in some cases different kinds of schools, but as to number, it is probable that we now have more than sufficient.

The trade studies show that special training provisions not now existing are called for in only a few directions. Such provisions are needed in the case of the costume trades, for designers for printed textiles and for fine jewelry. Development of textile school training for designers of woven pattern textiles is also indicated as a need of the near future. In other fields the advance of standards depends on developing a higher order of taste on the part of the buying public and upon the readiness of manufacturers to invest their products with finer artistry rather than upon new school provisions.

Modifications of the training now given in many of our schools in the direction of more specific instruction and with greater reference to commercial requirements will at least afford a sound preparation for graduates expecting to enter upon practical work.

We must take into account in this connection the number of designers needed to supply the various industries. Obviously it would be a mistake to set up machinery to train a large number of workers where the field can absorb but a few. Outside the cities of New York, Boston, Philadelphia, Providence, Cleveland, and Chicago, and certain local centers of production, not only is there little in the way of school provision for training designers for the manufacturing industries but there is very little in the local situation which justifies the organization of specialized courses of training. The school of applied arts can reach its full development only where the demand of the consumer is being actively responded to by the work of the designer and the manufacturer and where at the

same time it has at its disposal comprehensive and inspiring collections of source material in the way of museums, exhibitions, and commercial displays.

On the other hand it would seem to be true that no one type of central school is calculated to take care of all the elements in the problem. The needs of the different branches of the art industries are so varied, so distinctive as to nature and extent of training required, so specialized in dependence upon technical knowledge, that there would seem far greater chance of meeting these needs by a series of special schools or of special classes connected with various types of schools, than by any one institution.

Taken as a whole it seems clear that a comprehensive system of applied art schools calculated to function most effectively under our conditions would consist of a number of general schools where a sound basis of culture and skill may be developed that will serve as a foundation for any field of practical design, supplemented by a number of special schools or classes that will allow students to advance further in the particular requirements of certain art industries. For the support of the first type of school, state, city and private funds and private initiative may be relied upon. For the latter, it would seem apparent that financial cooperation on the part of manufacturers is needed. The requirements for such training are too specialized and too limited in extent to warrant support solely by the agencies at hand, and for the development of such special training it would seem clear that manufacturers must face the necessity of practical financial cooperation.

Such cooperation might take a number of forms. It might be supplied by the donation of special equipment on the part of employers, by contributions for the salaries of special instructors, or by liberal provisions for scholarships. This latter element is at present represented in our art schools in very meagre fashion. Three of our schools receive fairly liberal gifts of state funds that are applied in this form. But in only a few cases are scholarships from manufacturers or the public developed in any substantial degree. This form of support if care-

fully planned and of fairly permanent character, and particularly if competitive or selective tests are brought to bear as to the beneficiaries can unquestionably become a very important element in furthering advanced instruction in this field.

In certain industries the establishment of one or two scholarships for a year's study and travel abroad to be awarded to specially promising graduates would be likely to return very positive benefits.

It is evident that all these forms of cooperation are much needed. Our schools taken as a whole have gone about as far as they can by themselves. If they are to advance beyond this point they will need assistance from the manufacturers liable to make use of their graduates.

To bring about such cooperation on a systematic basis, trade relations with the whole field of art education need to be developed and organized.

Trade associations are slow to take action in matters that seem far removed from the everyday field of business and require a considerable period of time for fulfillment. While individuals may be convinced, united action is difficult. To incite such cooperation and to further the study of practical measures it is possible that a committee developed by an organization more used to dealing with other than purely trade questions, such as a chamber of commerce or merchants' association, might perhaps be helpful. Such a committee should contain appointed representatives of the trade associations most concerned with the problem of applied design and should be composed of persons with an intelligent outlook upon the situation and earnestly interested in its improvement.

This idea might well be carried further in a number of our larger cities. In most of our cities the forces that operate in the field of industrial art are in no way coordinated though the situation varies in different centers. Conditions in New York are in marked contrast with those in Chicago. In the latter city with the recognized position occupied by the Art Institute and the new Association of Arts and Industries, the field is comparatively well unified. In New York City the situation

in so far as concerns schools, museums, trade associations and other organizations is strikingly lacking in unity.

No one central body with authoritative status exists to co-ordinate and further the work of these various agencies. Under these conditions there seems every reason to believe that an organization patterned on lines somewhat similar to those of the British Institute of Industrial Art or the Design in Industries Association would be of much value.

Such an organization might be national or local in its scope and could well address itself to all measures calculated "to raise and maintain the standards of excellence in works of industrial art" particularly such as look towards developing greater cooperation between trade associations, schools, museums, designers and art workers.

While dealing with the general subject of school organization, the important office of the evening school must not be overlooked. These schools play at present a very important part in furthering the education of young workers in the field of industrial art and from the nature of the case they must continue to be an essential factor.

The present large need in such schools is for the organization of courses in special branches of applied design related to the local industrial situation in addition to the general courses in drawing that often represent the only art instruction given in this field in many cities. There is need also for greater attention to the quality of instructors placed in charge of these courses.

In order to attract the right kind of material, it is necessary that fully as much care should be exercised in the selection of persons of superior ability and experience for instructors in these classes as in the case of day schools.

Among the special problems confronting our schools of applied art, the fact cannot be overlooked that we need a higher quality of youth in these schools. Successful careers in the field of art require talent, and some promise or indication of special capacity should be exacted from those admitted. We need better opportunities for selection and better methods of selection of student material. The architect is today the

best educated and most broadly cultivated of workers in the field of applied design. He has had the benefit of an extended training, involving a broad, cultural scope. Moreover, in the United States he represents a group in which social and intellectual selection has played a considerable part. We need something more approximating to this situation in our education in the applied arts.

One consideration that affects the quality of American youth entering upon applied-art education is the essentially modern quarrel between the fine arts and the applied arts. The idea that the fine arts as represented by painting and sculpture are something superior to the applied arts and that their practice is a matter of greater dignity is an attitude that persists tenaciously. There is still a vast difference in the appeal to young persons as between the career of a painter or sculptor and that of a designer. Even in schools where courses in both the fine and the applied arts are given the school authorities are very often found influencing talented students toward painting and sculpture and away from the study of industrial art. We are only slowly coming to recognize the true meaning of the applied arts in our national life. We are only gradually coming to recognize that art is fine not because of a particular medium, but when the expression of line, mass, and color is fine and beautiful, whether this be in a painting or a rug, and that art is not fine when this expression is poor and commonplace, whether the medium be sculptured bronze or a piece of furniture.

To obtain better student material in our art schools we also need not only higher material rewards for designers but a more recognized and dignified status. With us the designer has practically no status other than that of a worker in the industries. In Europe he is regarded as an artist and occupies a dignified position in the community.

When we gain greater recognition of the importance and meaning of the applied arts we can perhaps hope for better methods of selecting our student material. At present we must depend in this matter upon our leading schools where the de-

mand is greater than the capacity to apply such methods as will gradually raise the artistic quality of the entrants.

Furthermore, we need more intensive and more thorough training in most of our art schools. Into this problem enters the quality of the instructing staff. In many of our schools the instructors receive but modest compensation. They are as a body earnest and devoted but not always talented and oftentimes lacking in experience and culture.

This situation can only gradually change as the value of school training becomes more fully recognized and the schools become a more weighty factor in the situation.

This problem of advanced standards of training is concerned not only with the organization and work of the school, but with the character of American youth. Art is a long road. Not only are our social ideals almost alien to this field of work, but the American boy and girl does not take kindly to the severe application and discipline needed for mastering it. Cleverness and versatility have been called the bane of American youth. Young America is filled with the faith that readiness and wit, however superficial, will serve to master any situation. Our boys and girls are continually looking for a short-cut, and the thorough training and preparation needed for mastery are not readily accepted by them.

Schools and school practices, admirably developed for European conditions, fail to present entirely competent solutions for our problems, largely because of the great difference in attitude of American youth as contrasted with the youth of older countries. In Europe with its severe competition between individuals, young persons often beginning at fourteen years of age readily subject themselves to long periods of vocational training in special schools.

The American youth, on the other hand, with the numerous opportunities for wage earning before him, does not readily submit himself to vocational training beyond the age of sixteen unless he has the sure guarantee of a sufficient reward. Both the economic and the social outlook limits the numbers that now turn in this direction. Only when the practice of

industrial art gains greater recognition as a field offering substantial vocational opportunities, will larger numbers of superior young persons be attracted to it. At present we need a larger supply of finer student material from which to produce the exceptional artist.

Production of all our artistic goods through designers of ordinary capacity without strong individual talent may result in a fairly satisfactory mean artistic level but it cannot secure for us the finest artistic creations. High artistic expression is essentially an individual affair, and if we are to reach an art culture consistent with the wealth and variety of our civilization there must evidently be distributed through the field of applied art exceptionally gifted designers and artists who can carry their achievements to high levels and so inspire the whole situation.

To nurture such individuals is perhaps the most important office of the schools of art. For this we need fine schools officered by talented persons where the ideal of beauty may be cultivated as the basis of all endeavor, whether the field be that of the fine arts or the applied arts. Out of such schools, granted a high quality of instructors and student body, may readily come exceptional individuals who will bring the element of beauty into the mass production of our industries. Such individuals must understand the ways of men and much that goes with the cramped and conditioned physical forces of production.

And here we are faced with the common criticism of the art schools by the manufacturers, that they are not practical, that they turn out young people with theories, who are without knowledge of the requirements of commercial practice. These criticisms are at once just and unjust. It is undoubtedly a fact that few, indeed, of our art schools offer instruction to any sufficient degree in the specialized and technical requirements that surround all practical achievement in commercial design. To better this situation, not only teachers of greater talent are needed but teachers with practical experience who thoroughly understand the technical requirements of production

and who can impart their instruction in a professional spirit.

Furthermore, there should be far closer relations with the industries on the part of the schools and greater effort to meet fundamental trade requirements. In this connection, an advisory committee from the trade can render much assistance. Such a committee connected with an art school is not an effective instrument unless the institution makes it so, but with seriousness of purpose on both sides cooperation of this kind can be made to render invaluable service.

On the other hand, when all is said and done, we must recognize that there are many things the schools cannot do and which it is not desirable for them to attempt. No school can develop the ripened artist. For this there is needed actual experience under practical conditions. The school can only prepare for this apprenticeship which is just as essential a feature in the education of the designer as the instruction of the schools. Such an apprenticeship can best be gained through an organization which brings the stimulus of emulation and the assistance of expert guidance. In such an organization, surrounded by fellow workers engaged on the same problems, the individual may mature and ripen. Furthermore, a school can impart to its students only the heritage of the race in knowledge and experience. In art schools this must be the same. Creative work and the improvement of standards must be accomplished on the outside. The school can only work toward these standards as they are developed in the stress of practical competition.

These considerations make it clear that the full task of developing the American designer will not be faced until we reach the point where the industries are willing to admit young persons from the art schools into their ranks and to assume responsibility for guiding and further developing them.

Commercial establishments and studios must appreciate the fact that art-school students are young people with all the immaturity and idiosyncrasies of youth. They must accept the responsibility of guiding and developing these young per-

sons, with the knowledge that not every one will be a success but that from such a policy, earnestly pursued, there will come a large return for the time and trouble expended.

Unless the industries assume this latter responsibility, either in their own establishments or in high-grade commercial studios, the work of the schools cannot hope to be productive of the highest results. The bridge to connect the schools and the industry must be built out from both sides, if it is to meet in the middle.

There is a further responsibility that should be recognized in this connection by the commercial organization. The artistic designer needs encouragement and stimulation. It is safe to say that wherever in the survey fine and inspired work in design was found, it was also found that special consideration was given the designers in regard to their surroundings, in freedom and in encouragement. Where commonplace and mediocre designs were the rule, the working conditions were generally found to be those of the mechanic or artisan.

However sympathetically schools and industry face the problem of practical cooperation, it is, of course, too much to expect that we can achieve any sudden great advances in American industrial art. The quality of European designs, evolved by workers who have subjected themselves to a training far more serious than that generally undertaken by American youth, the artistic atmosphere and traditions of the old world that make both for unconscious education and higher aesthetic standards, the prestige of European creations, the fact that Europe contains in varied forms most of the original source material relied upon so largely by designers—all indicate that American progress towards self-sufficiency in this field can be but gradual and can be achieved only by vigorous and concerted effort.

This is the side that must be kept in mind to guard against illusion. On the other hand, if increasing and many-sided effort can be brought to bear and a larger degree of cooperation developed, we can confidently expect steady advancement. We can be confident that agencies are operating and are mul-

tiplying that may be relied on to advance our standards of public taste, that the wealth of the country and pride in our homes are exerting increasing insistence for finer things, that manufacturers can be counted on for earnest effort to lead the rising level of demand and more and more to seek greater beauty in their products.

We can be sure that our leading art schools are awake and striving to develop more effective training. Furthermore, we need not lack confidence in the many-sided ability and talent of American youth to respond to the demands in this new field.

What we have not yet, but what we may reasonably hope for, is active cooperation between manufacturers, schools, museums and other agencies in the field. If the manufacturers in certain industries can be brought to the point of acting through their trade associations upon measures calculated to develop the special training needed to meet their problems and to develop working relations with the various organizations in the field we can hope to go forward much more rapidly.

We must realize there is no one solution to the problem. The situation is far too complex. We need to move ahead on many different lines in order that standards of both demand and supply may be continuously advancing.

To effect this the operation of many different forces is requisite. These forces will not all be exerted to the full until economic advantage is more clearly brought home, but the present is surely a peculiarly appropriate time to push forward. We have seen the vision in the past few years and know something of the road.

If our efforts are to carry us far it is clear they must comprehend both the ideal and the material. Manufacturers and schools and all interested in progress in the field must not only lend their efforts to further all practical measures that will advance our standards, but they must as earnestly unite to educate our people to the belief that the development of our industrial arts is a spiritual as well as an economic achievement necessary for the country's growth. When once the idea

reaches our consciousness as a people that a finer quality of art in American life constitutes for us a national need, we may hope for steady and continuous advance that will bring us in time to an art worthy of the ideals of American democracy.

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